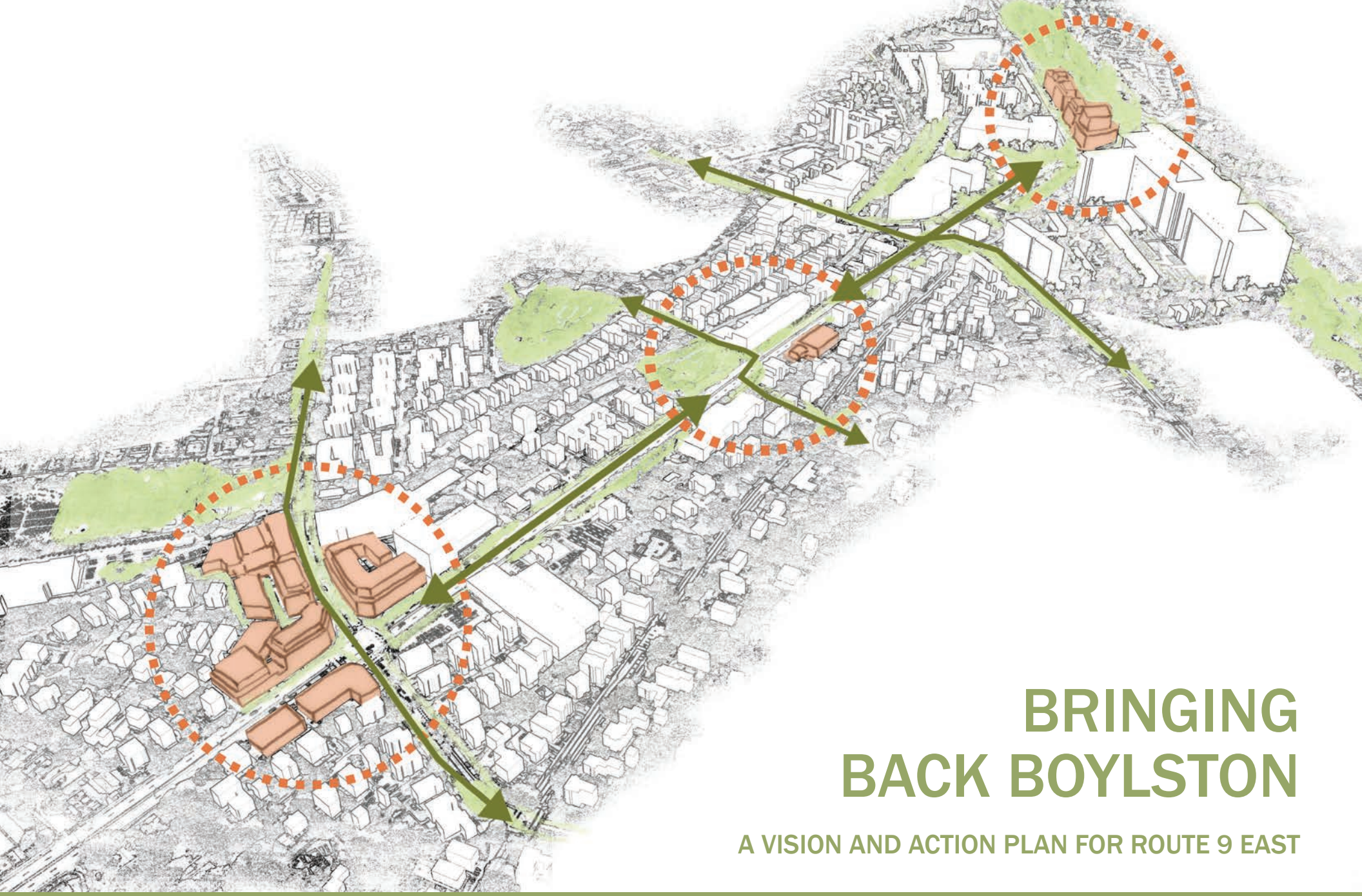

BRINGING BACK BOYLSTON

A VISION AND ACTION PLAN FOR ROUTE 9 EAST

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
DEPARTMENT OF URBAN STUDIES AND PLANNING

BRINGING BACK BOYLSTON: A VISION AND ACTION PLAN FOR ROUTE 9 EAST

Prepared for: Town of Brookline

Prepared by: MIT Department of Urban Studies and Planning

Date: December 2015

DUSPMIT

CREDITS

Authors

Amy Plovnick
Asresh Guttikonda
Carolina Hollmann
Devon Neary
Ellen Morris
Elliot Kilham
Jon Campbell
Paige Peltzer
Saul Wilson
Sasha Shyduroff
Tatjana Trebic

Course Advisors

Terry Szold - Adjunct Professor of Land Use Planning (Instructor)
Susan Silberberg - Lecturer in Urban Design and Planning (Instructor)
Minjee Kim - PhD Candidate in the Department of Urban Studies and Planning (Teaching Assistant)

Prepared for the Town of Brookline's Planning and Community Development Department
Economic Development Division

Department of Urban Studies and Planning
School of Architecture + Planning
Massachusetts Institute of Technology
Cambridge, MA

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Kara Brewton - Economic Development Director, Planning and Community Development
Alison Steinfeld - Director, Planning and Community Development

Department of Urban Studies and Planning

Terry Szold
Susan Silberberg
Minjee Kim

The community members and professionals who participated in phone interviews and attended public meetings:

Abby Swaine
Alan Christ
Alison Steinfeld
Amie Lindenboim
Andy Olins
Angela Eleazar
Angela Hyatt
Anne Lusk
Anne Meyers
Annette Born
Annie Rotner
Antonia Bellalta
Arlene Mattison
Bailey Gaffney
Barbara McDonough
Ben Franco
Bernard Greene
Betsy Shure Gross
Bill Reyelt
Bob Cook
Bob Speilvogel
Carla Benka
Carol Holt
Carol Levin
Charles Osborne
Chris Glenn
Christina DiNardi
Colleen Suhanosky
Cynthia Snow
Dave Pantalone
Debbie Miller
Derrick Choi
Diana Post
Don Warner
Eddie Brickman
Edith Brickman
Elias Patoucheas
Elizabeth Shalemo
Frank Caro
Fred Perry
Gary Gross
George Cole
Georgia Balafas
Giti Saeidian
Helen Herman
Henry Winkelman
Hugh Mattison
Jack Donigian
James Franco
Janice Kahn
Jesse Geller
Jessica Chung
Joanna Messing
Joe Zanca
John Bassett
John Bowman
John Dempsey
John Siemiatkoski
Josh Safer
Ken Goldstein
Linda Hamlin
Lynda Roseman
Margaret Connell
Mark Tedrow
Merelice
Michael Gray
Milly Baker
Mitch Halpert
Paul Saner
Philip Kramer
Pilar Bontana
Polly Selkoe
Rob Daves
Roxanna Myhrum
Ruthann Sneider
Sarah Smith
Scott Englander
Sean Preston
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Steve Heikin
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TABLE OF CONTENTS

EXECUTIVE SUMMARY

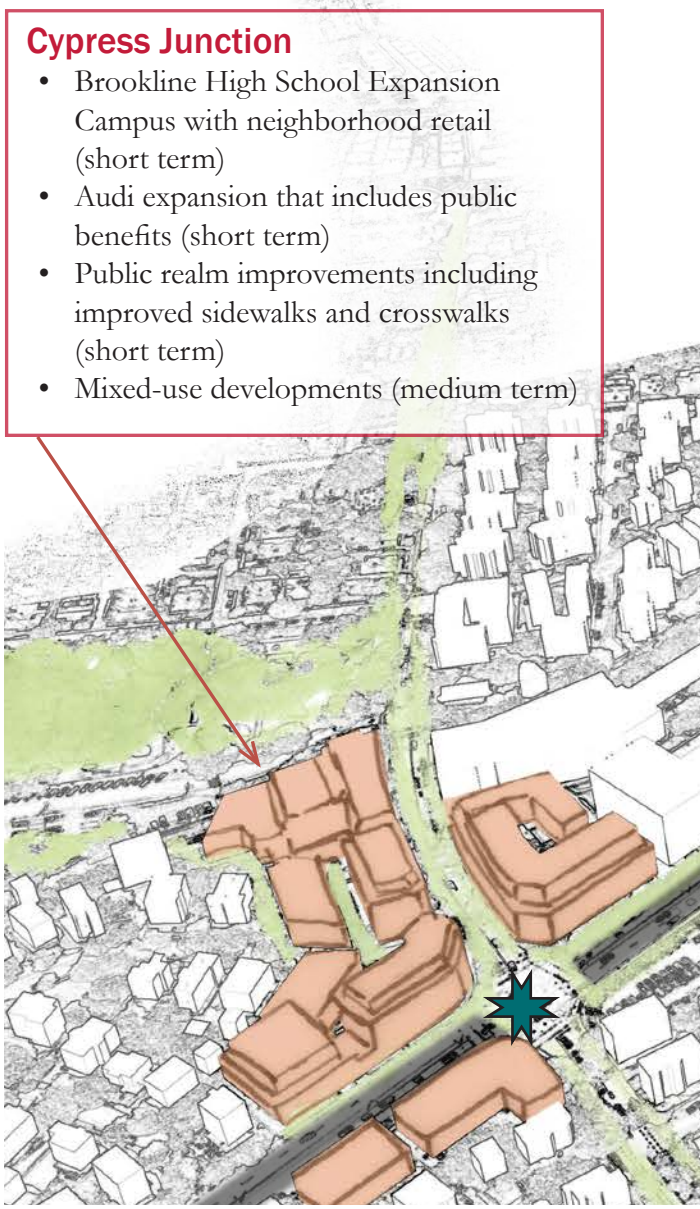
Bringing Back Boylston: A Vision and Action Plan for Route 9 East offers a comprehensive strategy to manage future growth and development along the Route 9 East corridor in Brookline, Massachusetts. This plan was developed by a team of graduate students from the Massachusetts Institute of Technology and Harvard University in a practicum workshop in MIT's Department of Urban Studies and Planning. It is the product of several months of fieldwork, research, community outreach, and planning work.

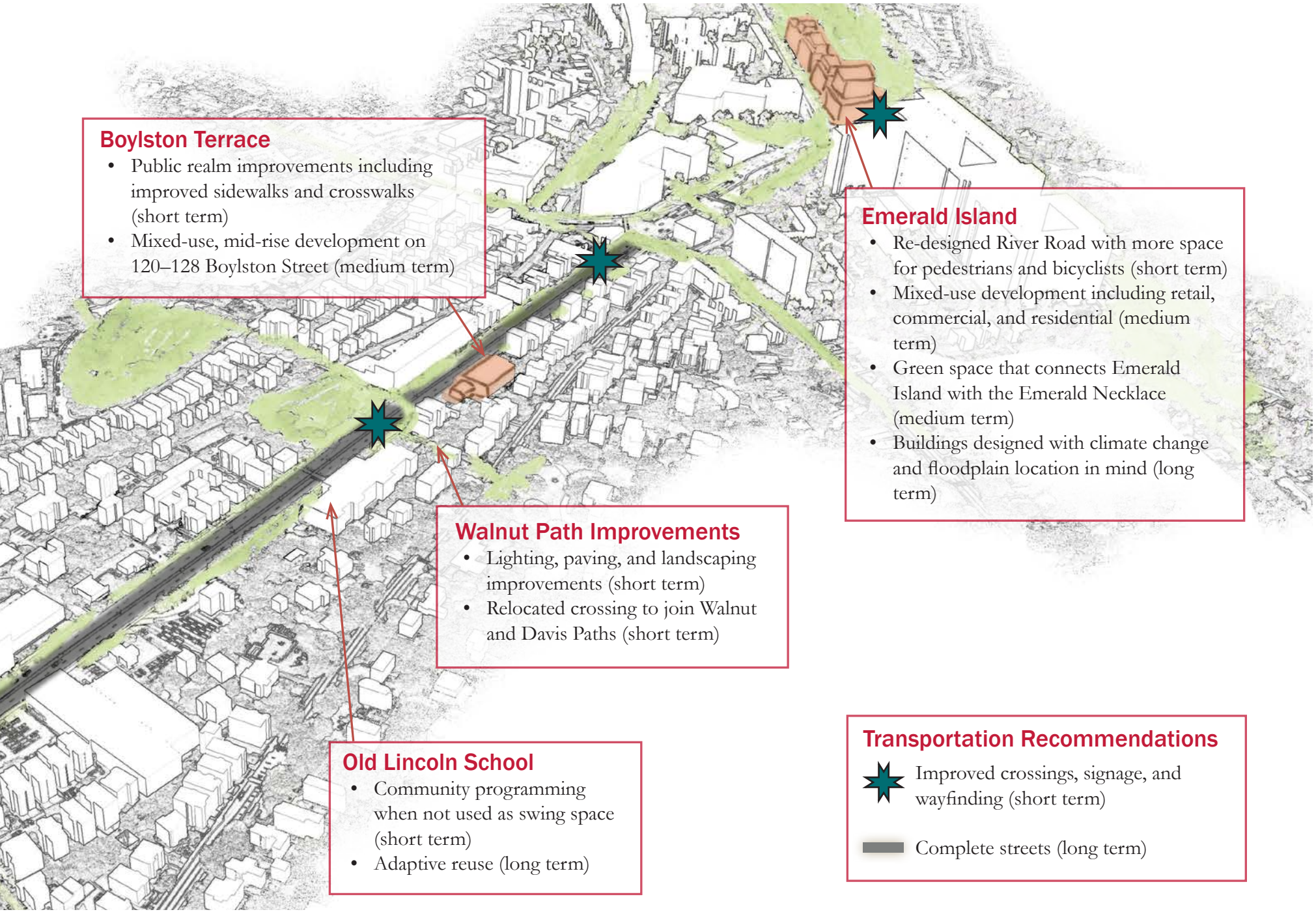
The Town of Brookline's Planning and Community Development Department commissioned this report in response to renewed development interest and activity on Route 9 East and in acknowledgment of a growing desire by community members to reimagine the street as a pedestrian-friendly commercial destination.

Bringing Back Boylston envisions the transformation of Route 9 East — an auto-dominated state highway — into Boylston Street: a lively and cohesive destination with multi-modal transportation options, innovative commercial uses, and an inviting public realm. The plan accomplishes this bold vision by recommending a phased approach around key catalyst sites and roadway improvements. In addition to site-specific recommendations, the report provides a framework for zoning and public realm improvements that will help spur development along the entire corridor while providing significant benefits to the public in the form of an enhanced pedestrian environment, retail uses that serve the neighboring communities, and a stronger commercial tax base.

This Boylston Street vision will be realized over time as the street becomes safer for pedestrians and as new development occurs along the corridor. In the short-term, the objective is to improve connections between surrounding neighborhoods at key intersections along Boylston Street. In five to ten years, development at key catalyst sites will build on the momentum of existing projects and create new destinations that enhance the corridor's centers of activity. In the long-term, transportation improvements and continued infill development will bring new activity and cohesion along the corridor. This vision is enabled by amendments to the Zoning Bylaw that include form-based zoning overlay districts, streamlined approval processes, and incentives for public realm improvements.

While these recommendations provide a vision for development, it will be up to the Town of Brookline and community members to finalize and implement these changes. Residents are encouraged to review these recommendations, respond, and become involved in realizing this vision for a better Boylston Street.





Boylston Terrace

- Public realm improvements including improved sidewalks and crosswalks (short term)
- Mixed-use, mid-rise development on 120–128 Boylston Street (medium term)

Emerald Island

- Re-designed River Road with more space for pedestrians and bicyclists (short term)
- Mixed-use development including retail, commercial, and residential (medium term)
- Green space that connects Emerald Island with the Emerald Necklace (medium term)
- Buildings designed with climate change and floodplain location in mind (long term)

Walnut Path Improvements

- Lighting, paving, and landscaping improvements (short term)
- Relocated crossing to join Walnut and Davis Paths (short term)

Old Lincoln School

- Community programming when not used as swing space (short term)
- Adaptive reuse (long term)

Transportation Recommendations

Improved crossings, signage, and wayfinding (short term)

Complete streets (long term)

1 INTRODUCTION

Figure 1.1: Project study area.

1 INTRODUCTION

Summary of Course

The Town of Brookline engaged the Community Growth & Land Use Planning class from the Department of Urban Studies & Planning at MIT during the fall of 2015. The class was asked to develop a vision for the Route 9 East corridor near Brookline Village, explore several land use scenarios, and submit a plan of recommendations and implementation strategies to make the vision a reality.

The Route 9 East corridor — also known as Boylston Street — has been a focus area for discussions for many years. However, the Town of Brookline does not have a comprehensive, proactive design and development vision to guide change along the corridor. The Town recognized the current opportunity to build off of momentum created by the development of the Homewood Suites hotel, One Brookline Place, and the MassDOT Gateway East roadway improvements to develop a proactive strategy to shape corridor development.

A comprehensive vision for the area is needed to harness this momentum into the kind of development and public realm improvements that the town desires and needs. To achieve this vision, the Town of Brookline tasked the class with considering the following objectives for Route 9 East:

- Expand the tax base and increase commercial and retail activity;
- Increase housing supply as feasible;
- Improve safety and accessibility for pedestrian, bicycle, and vehicular modes of transportation;
- Enhance the public realm and visual environment.

Figures 1.2 and 1.3: Photos of the study area.

Project Timeline

The work for this plan was conducted during the fall semester at MIT from September to December 2015. There were three main stages of the project:

- **Analysis of Existing Conditions (September to October):** Conducted an initial client meeting, site visits, stakeholder interviews, and research on background information and the history of the study area. This stage culminated in the first presentation to the public.
- **Preliminary Recommendations and Feedback (October to November):** Created a development strategy, identified catalyst sites, and provided a framework for zoning changes and public realm improvements. These recommendations were included in a second presentation to the public.
- **Final Recommendations and Report (December):** Identified a final set of recommendations that were transcribed into a final report for use by the Town.

Process

This planning effort combined classroom lectures and readings with field work, client and public meetings, and planning tasks to develop this plan. Key elements of the effort included:

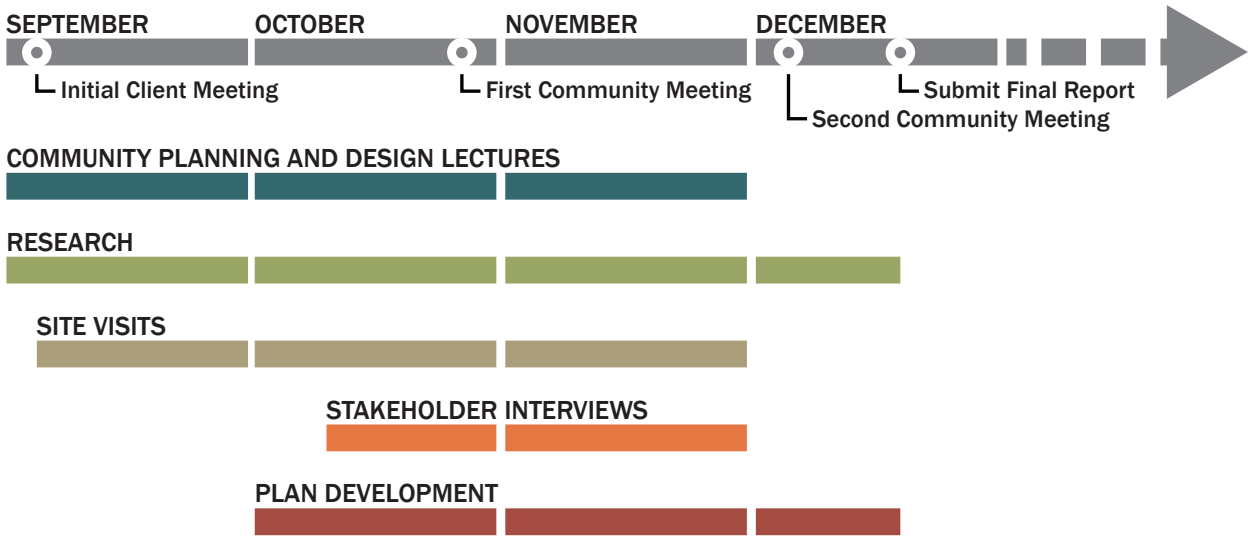


Figure 1.4: Project timeline.

Client Meeting and Site Visits

Kara Brewton, Economic Development Director, and Andy Martineau, Economic Development Planner for the Town of Brookline, kicked off the project by attending the first meeting of the course on September 10, 2015. The framing and context from this conversation set the stage for an initial weekend site visit two days later, on September 12, 2015, when the students and course instructors toured the study area and interacted with the people, public spaces, and businesses at the heart of the project. During this initial site visit, students gathered information on the current land uses

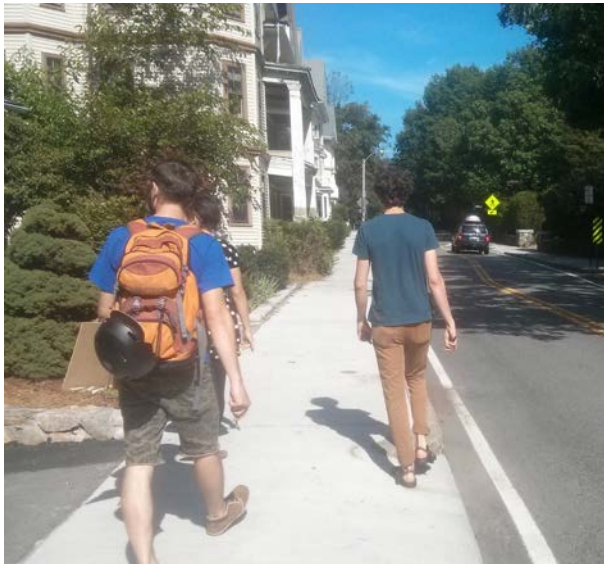


Figure 1.5: Project team site visit.

Figure 1.6: Community engagement outcomes.

and activity levels in the study area, on multi-modal transportation and parking on and across Route 9, and on the character, design, and form of the built environment in the corridor. Project team members verified these initial impressions by looking at official land use and assessor's data, conducting informal interviews with business owners, and examining data on area transit service and use, vehicular traffic, and parking availability.

After the first site visit, project team members visited the study area multiple times during different times of the day and week, on warm days and on cold, rainy nights. Every visit provided multiple data points and diverse experiences and observations that led toward a better understanding of Route 9 East.

Community Engagement

Phone Interviews

Phone interviews were conducted with residents, members of community organizations, committee members, current and former Town Meeting members, business owners, members of business associations, real estate agents, and property owners. These interviews provided vital information on how people experience this stretch of Route 9 East, what they use it for, their hopes for the future, and what factors they believe impede the development of attractive uses and engaging public spaces in the area.

Attending Community Meetings

The study team attended community meetings in Brookline on topics ranging from bicycle transportation to affordable housing and site-specific redevelopment projects. These meetings gave the project team members further appreciation and insight into the types of concerns community stakeholders have in and around the study area.

Hosting Project Public Meetings

Two public meetings, held in the evening at Brookline Town Hall, served as important

Figure 1.7: Breakout group discussion at the October 28th public meeting.

platforms of engagement and feedback between the community and the project team. The input received during these meetings was invaluable to the planning team as recommendations were developed and revised. A synthesis of the input received during this community engagement process is presented in Part 3 of this report.

At the first public meeting, on October 28, 2015, the project team summarized its initial findings and preliminary recommendations. Approximately 60 community members attended, including residents, community advocates, members of the Board of Selectmen, Planning Board members, and others. Following a presentation by the project team, participants broke into small groups to provide initial reactions to the presentation and to develop suggestions for the possible transformation of Boylston Street within timeframes of five and twenty years. Groups expressed their ideas and concerns visually and spatially by drawing on maps of the study area. Participants then summarized their priority ideas and concerns to the larger group.

At the second public meeting, on December 2, 2015, an audience of 35 heard the recommendations presented by the project team and gave feedback on specific concepts and strategies. Throughout the presentation, the project team engaged the audience in a series of "pulse check" questions to see which topics and ideas resonated the most. In the second part of the meeting, the attendees divided into groups based on interest in specific locations throughout the corridor and shared thoughts on the quality of the recommendations as well as ideas regarding next steps for implementation.

At both meetings, community members gave additional oral and written feedback through a question and answer period and by filling out comment cards. In the second meeting, comment cards also allowed those in attendance to indicate which sets of recommendations they would be willing to further develop and help implement. A summary of which recommendations meeting attendees were interested in carrying forward is presented in Part 5 of this report.

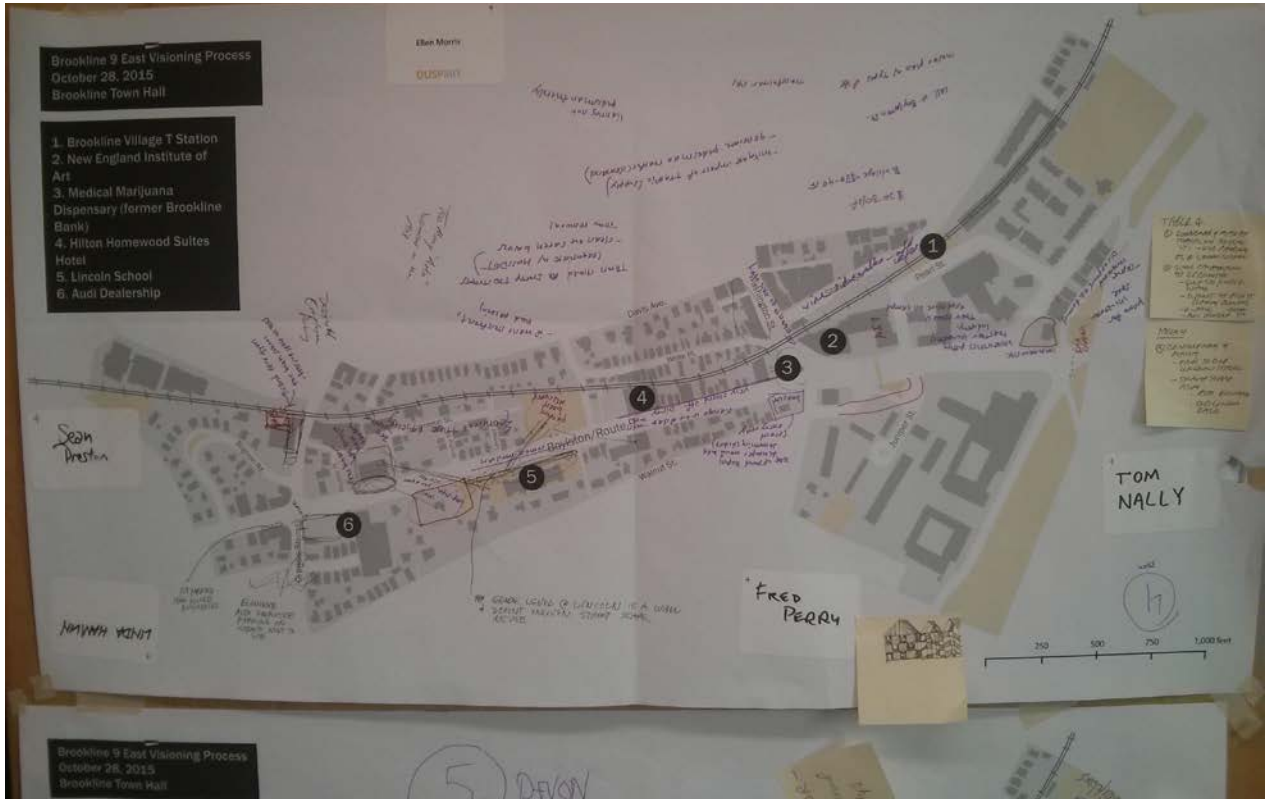


Figure 1.8: Sample output of mapping exercise during October 28th public meeting.

2 ABOUT THE STUDY AREA

2 ABOUT THE STUDY AREA

Strategically located between one of Boston's major employment hubs and one of the metro area's most sought-after residential neighborhoods, the Route 9 East study area is ripe for development. The area's greatest challenge is overcoming the auto-centric legacy that has traditionally dominated its physical and commercial character, shaping it as a place to drive through rather than a destination. The Town of Brookline has long sought to transform Route 9 East from a divisive line separating the north and south sides of town into a corridor that knits together its neighborhoods. A recent wave of development interest creates an opportunity for the Town to implement a cohesive vision for the corridor that provides needed retail, residential, and public realm amenities while expanding Brookline's commercial tax base.

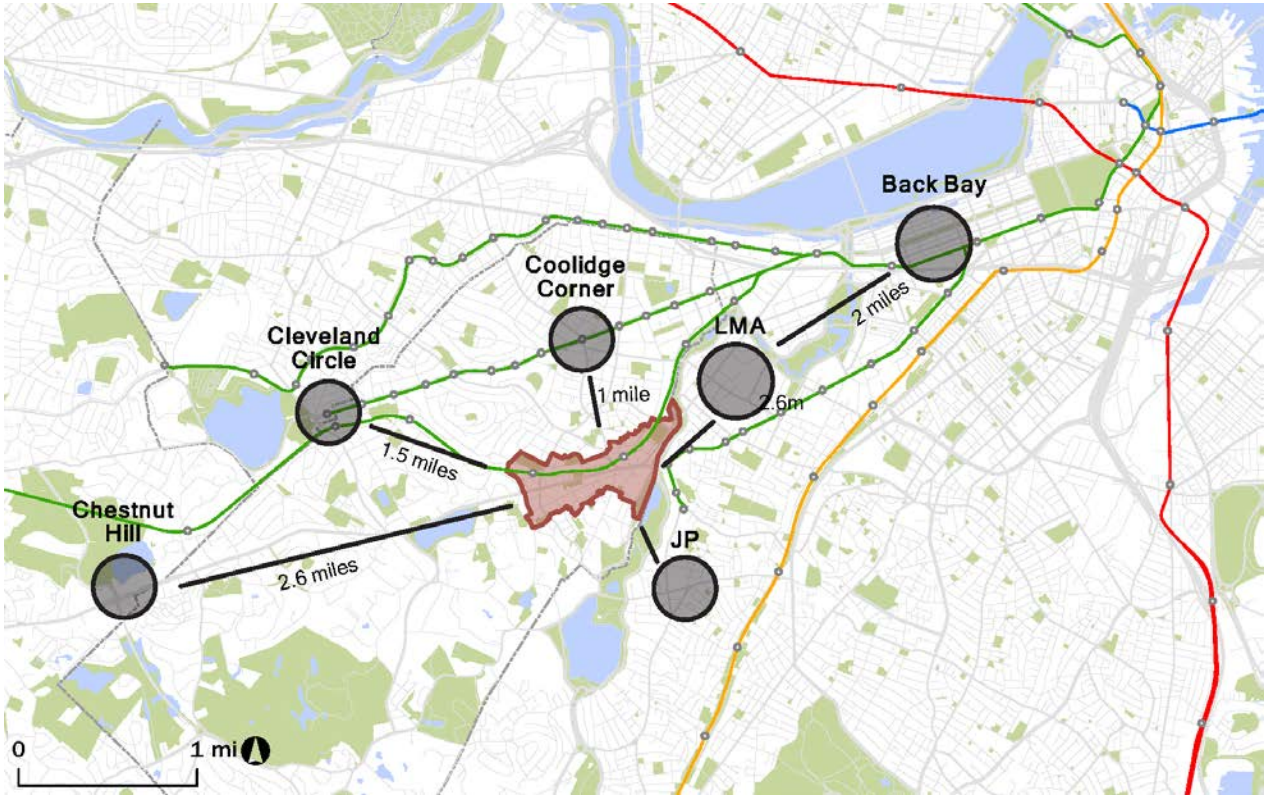


Figure 2.1: Study area location in relation to commercial and neighborhood centers.

Location

The study area consists of the two-thirds-mile stretch of Route 9 East/Boylston Street between the Brookline-Boston border and Cypress Street. It is located at the midpoint between the regional shopping hubs of Back Bay and Chestnut Hill, and between the local retail and neighborhood centers of Coolidge Corner, Jamaica Plain, and Cleveland Circle. Its central location is both an advantage and a challenge. Route 9 East is heavily trafficked and adjacent to some of the most desirable residential areas in the Boston metro region. However, the strength of the surrounding commercial areas makes competition difficult and requires careful positioning of new development within local markets. The area's most strategic assets are its proximity to the Longwood Medical Area — the economic engine of the region — and its connection to public transit with two green line T stations and local buses.

Historical Context

Route 9 East runs just south of Brookline Village, the center of civic and commercial life for the Town of Brookline. Route 9 (originally Sherbourne Road) was the first east-west throughway across Massachusetts. The creation of the Worcester Turnpike in the 1810s and the opening of a trolley line in 1910 along what is now Route 9 solidified the corridor as a regional transit hub.[1] Surrounding residential areas were well served by the first public playing fields in the country, the Boylston and Cypress playgrounds, and by adjacency and connections to the Emerald Necklace.[2] Over time, car ownership gradually reduced trolley ridership, and Worcester Turnpike officially became Route 9, a state highway, in 1932.[3] The trolley service was discontinued the same year and replaced by a bus service. In the 1960s' period of urban renewal, Route 9 was widened and historic buildings were replaced with office buildings.[4] Brookline Village remained a civic and commercial center, but the Route 9 corridor was transformed into the car-centric commuter strip we see today.

Corridor Character

There are a variety of land uses, densities, and architectural styles along Boylston Street. Auto-oriented commercial uses are the most prominent. Residential uses facing Boylston Street range from three- to four-story

Figure 2.2: Historic views of Brookline Village and Route 9 East.

1937 – "Village Square in 1937, with streetcars and shops galore. This view is taken looking down Route 9 toward Mission Hill." Courtesy of Brookline Historical Society.

Source: "Boston's Cancelled Highways." Boston Streetcars. Accessed December 11, 2015.

1940 – Streetcar service along Route 9 through Brookline Village Square.

Source: "Brookline Village Square, Brookline, Massachusetts." Digital Commonwealth: Massachusetts Collections Online. Accessed December 11, 2015.

Figure 2.3: Neighborhood amenities including open space, schools and pedestrian pathways.

townhouses to high-rise condominium buildings. There are many mixed-use buildings with small retail spaces on the ground floor and residential and office/studio space above. Large historic buildings punctuate the corridor, but these have no common thread in either style or function. In interviews with stakeholders, Brookline residents identified three main reasons to travel along or across Boylston Street: to get to the destinations of Brookline High School; Old Lincoln School; or Boylston Street Playground. The only commercial destination consistently mentioned in comments was La Morra, an upscale Italian restaurant. The connections to the Emerald Necklace also stood out as an amenity used by local residents. Each of these destinations creates specific parking, pedestrian, and bike traffic demands that are not well accommodated by the study area's current conditions.

Surrounding Neighborhoods

Several distinct residential neighborhoods surround the study area: The Point and the Pill Hill Historic District to the south of Boylston Street, White Place and Emerson Garden to the north, and a section of high-rise condos and affordable housing buildings to the southeast. Overall, the study area has a socioeconomic profile similar to Brookline as a whole, but there are some important variations within each of these residential sub-areas. White Place and Emerson Garden have a higher percentage of couples and families with

Figure 2.4: Neighborhoods in or adjacent to the study area.

Table 2.1: Income and housing characteristics of the study area and surrounding neighborhoods.

	Brookline	Study Area	North: White Place and Emerson Garden	East: Including Brook House	South: Pill Hill and The Point
Median Household Income (in 2013 inflation-adjusted dollars)	$96,488	$90,862	$130,799	$64,063	$81,250
Median Home Value (owner-occupied units)	$702,600	$529,402	$628,700	$388,600	$650,900
Median Gross Rent	$1,804	$1,808	$2,001	$1,780	$1,700

Source: Social Explorer Tables: ACS 2013 (5-Year Estimates) (SE), ACS 2013 (5-Year Estimates), Social Explorer; U.S. Census Bureau

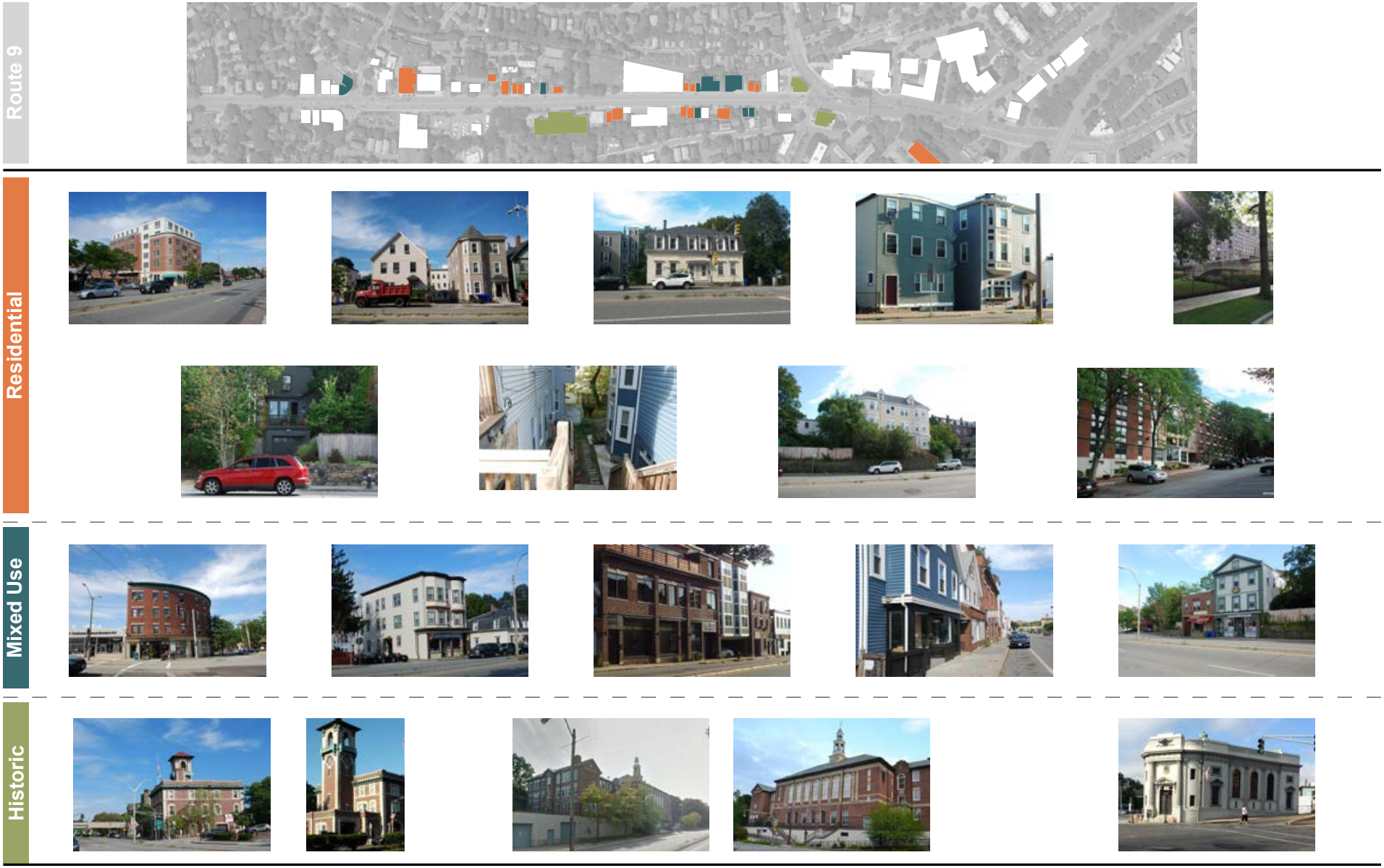
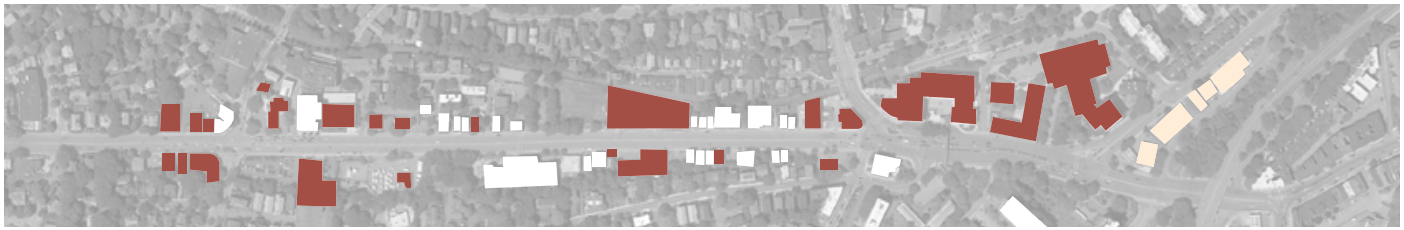


Figure 2.5: Typology of buildings in the study area.

Route 9



Retail / Commercial / Office









Industrial




Streetscape




children, a higher median income, and higher homeownership rate compared to the other surrounding neighborhoods.

The areas of Pill Hill and The Point, joined into a single census tract, have the greatest demographic variation: the median home value is the highest, presumably driven by the properties in the Local Historic District of Pill Hill. However, almost a quarter of the children in the combined areas live below the poverty line, likely concentrated in the traditionally working class area of The Point. The eastern section of the study area has the lowest median home value and median household income, which could be explained by the prevalence of single-person households, affordable housing, and apartment units, most of which are rented. This eastern section also has the highest poverty rate among seniors within the study area.

Previous Planning Efforts

The Town of Brookline has imagined Boylston Street as a vibrant commercial corridor for decades, but it has struggled to provide the right incentives to spur development. In the early 1990s, the Town increased the amount of developable square footage per parcel in parts of the corridor, but this up-zoning failed to attract new development. More recently, Brookline's 2004 Comprehensive Plan put forth the following vision for Route 9:

"Route Nine will not divide Brookline. The Town will work with all appropriate parties to minimize this division, both physically and in terms of perception, and to make the areas through which Route Nine passes more attractive for residents."

This statement was in line with the Plan's objectives for the Town as a whole, which included strengthening connectivity through public realm improvements, contributing to regional housing and transportation demands, and increasing socioeconomic diversity and affordable housing. On Route 9 East specifically, the Plan prioritized transportation improvements, urban design and open space improvements, and commercial and residential growth through mixed-income development.

In 2006, as challenges along Route 9 East persisted, the Town commissioned the Gateway East Public Realm Plan to create a set of design principles that emphasized greening the corridor, reducing the prominence of auto-centric space, improving the pedestrian and bicyclist experience, encouraging infill development, and improving connections to public transit.

This report builds upon these design principles and incorporates them into a comprehensive development strategy that will channel development interest in the corridor toward achieving these goals.

Figure 2.6: Vision for Route 9 East corridor from 2004 Brookline Comprehensive Plan. Image Source: Goody Clancy, Brookline Comprehensive Plan, pg. 65

Existing Momentum

Strong economic conditions and recent successes in coordination between developers and the Town have sparked a wave of major developments in the area. Ten projects, described on the next page, are in the pipeline with the potential to greatly influence the character and level of activity of the corridor.

The new Homewood Suites Hotel at 111 Boylston Street and the approved Children's Hospital development at Brookline Place will transform some of the largest sites within the study area. The proposed Audi dealership showroom expansion project, if it moves forward as currently planned, will have a strong visual presence on the Cypress Street/ Boylston Street intersection. New businesses opening soon in the area, including the medical marijuana dispensary at the former Brookline Bank site and a new Buddhist Center, will serve as regional destinations.

The New England Art Institute building, which will be vacated within the next three years, and the parcel for sale at 111 Cypress Street currently have uncertain futures, but any new development will undoubtedly have an effect on traffic and activity along the corridor given their size. The Gulf gas station at the edge of the industrial section at River Road is under agreement to be redeveloped into a commercial property.

Lastly, the Town and MassDOT are partnering on the Gateway East Project to modify the streetscape of Route 9 East from the Jamaicaway to Washington Street/High Street. This project will improve sidewalks and pedestrian crossings, add protected bike lanes, and realign Walnut Street's intersection with Route 9 East to improve traffic flow and increase circulation options for pedestrians and bicyclists.

The combined impact of these projects is generating some long-awaited momentum in the corridor. Now that the area has drawn the attention of developers, the Town's challenge is to guide these projects with a cohesive strategy that leverages developers' interests and creates a commercial corridor that fits the community's needs and desires.

This renewed interest in the area presents an opportunity for the town to be proactive in eliciting from developers the types of public benefits the community hopes for. This report provides a comprehensive vision of what the community can seek from development at this critical time for the corridor and the town as a whole.

Section Endnotes

[1] MAPC. "History of Route 9." Accessed December 11, 2015. http://www.mapc.org/sites/default/files/Route9History.pdf.

[2] Brookline Conservation Commission. "Open Space 2010: Open Space and Recreation Plan for the Town of Brookline." May, 2011. Accessed December 11, 2015. http://www.brooklinema.gov/DocumentCenter/Home/View/2513.

[3] MAPC. "History of Route 9." Accessed December 11, 2015. http://www.mapc.org/sites/default/files/Route9History.pdf.

[4] Brookline Historical Society. "Photo Collection, Page 2." Accessed December 11, 2015. http://www.brooklinehistoricalsociety.org/archives/listPhotos.

PLANNED PROJECTS AND CHANGES

① EMERALD NECKLACE CROSSING

Status: Anticipated construction to start in 2016

② GULF STATION

25 Washington Street
Status: Under agreement for proposed hotel redevelopment

③ BOSTON CHILDREN'S HOSPITAL

One Brookline Place
Status: Project approved
Construction to start 2016
Anticipated completion: 2020

Project Details:
47,000 sf addition — medical office
New building of 182,500 sf — medical office (including 14,000 sf of retail
Rebuilt garage — additional 324 spaces
Max building height: 110'

④ THE NEW ENGLAND INSTITUTE OF ART

10 Brookline Place West
Status: Closing within the next three years. Future plans unknown.

⑤ GATEWAY EAST

Status: Design refinement.
Public realm improvements at the Washington Street intersection, and realigning Walnut Street's intersection with Route 9 East. Includes a protected bike lane, improved pedestrian crossing and improved signal timing anticipated before construction in 2017.

⑥ BROOKLINE SAVINGS BANK

160 Washington Street
Status: New England Treatment Access anticipated opening in 2016.

⑦ HOMEWOOD SUITES

111 Boylston Street
Status: Under construction
Completion: Anticipated first quarter of 2016
Total amount of development: 97,755 sf of hotel (130 rooms)
Max building height: 65' 4" including mechanical
FAR: 2.77
72 Parking spaces

⑧ SOKA GAKKAI BUDDHIST CENTER

303 Boylston Street
Status: Anticipated opening in 2016.
Façade re-design.

⑨ AUDI

308 Boylston Street
Status: Planning/design
Max building height: 51' 10" (requires zoning relief); FAR: 2

⑩ 111 CYPRESS ST

Status: Potential 40B redevelopment, possible solution for High School capacity issues

Image sources:

2. *Mikyoung Kim design and Elkus|Manfredi Architects rendering, "BCH's Presentation to the Brookline Planning Board." January 2015. http://www.brooklinema.gov/DocumentCenter/Home/View/7152*
3. *New England Institute of Art. Available at https://en.wikipedia.org/wiki/New_England_Institute_of_Art#/media/File:NEIA.JPG*
4. *vhb Gateway East Project rendering. "Gateway East Walnut Street Jughandle." 25% Plans. July 2015. http://www.brooklinema.gov/DocumentCenter/View/8056*
5. *Brookline Savings Bank. Available at http://x.lnimg.com/photo/poster_768/31ab78402a5c459c8221eb5a870ddf7d.jpg*
6. *Group One Partners rendering. "Homewood Suites Proposal Presentation to Planning Board." February 2014. http://www.brooklinema.gov/DocumentCenter/ Home/View/5156*
7. *Touloukian Touloukian Inc. rendering*
8. *Audi rendering. "Audi Brookline Major Impact Preliminary Plans." September 2015. http://www.brooklinema.gov/DocumentCenter/Home/View/8193*

3 EXISTING CONDITIONS

3 EXISTING CONDITIONS

Despite efforts by the Town of Brookline to spur development along Route 9 East through up-zoning and other strategies, problems persist in the area. Small parcels and restrictive zoning requirements limit what can be built along the corridor, while high-speed through-traffic and narrow sidewalks make the area feel unsafe for pedestrians. However, several factors prime Route 9 East for ongoing new development and public realm improvements. These include the corridor's proximity to two MBTA Green Line stations and employment centers such as the Longwood Medical Area, the availability of developable parcels (either alone or as larger assembled parcels), and the current MassDOT Gateway East project as well as continued Town support for street improvements. Even with the positive momentum of recent improvements and development, the corridor continues to present challenges that must be addressed in order for the Brookline's vision for the area to be achieved.

Challenges

Many of the challenges on Route 9 East relate to transportation. Route 9 East serves as an important east/west route in the Boston metro area's transportation network, providing a connection between the region's western suburbs and employment centers in Boston's downtown and Longwood Medical Area. This role leads to heavy rush hour traffic (eastbound in the morning and westbound in the evening). This traffic poses a challenge for Route 9 East because there is a perception by some community members that changes to the study area, whether through new development or pedestrian improvements, will cause already bad traffic to worsen.

Apart from a stretch of road between Washington Street and River Road, Route 9 East is a state highway under the jurisdiction of the Massachusetts Department of Transportation (MassDOT). This means that the Town must collaborate with MassDOT on changes to this section of the roadway as well as follow the MassDOT Project Development and Design Guide.

Many of Route 9 East's challenges, including speeding vehicles and conflict between vehicles

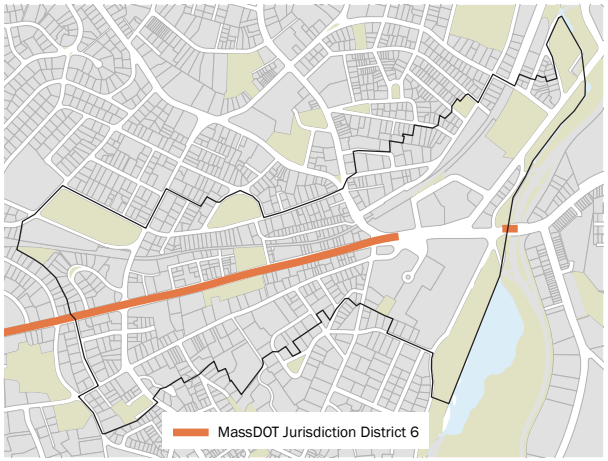


Figure 3.1: MassDOT jurisdiction on Route 9 East.

Figure 3.2: Passive and proactive roadway design. Image Source: NACTO Urban Streets Design Guide

Figure 3.3: Pedestrian crossing signal times and distances between existing crosswalks.

Figure 3.4: Existing and proposed bike facilities in the Brookline Bike Plan.

and pedestrians, are consequences of the roadway's passive design. The wide lanes, expansive intersections, and center median on Route 9 East were intended to minimize obstacles for vehicles and give "wiggle room" for unsafe driving behavior. Instead, such passive roadway design only encourages further reckless driving and higher speeds. Despite a posted speed limit of 35 miles per hour (mph), vehicles traveling on Route 9 East are regularly observed driving 45 mph or higher, which is the speed limit west of the study area.

Route 9 East is designed for cars, leading to an inhospitable environment for pedestrians. Sidewalks along Route 9 East are narrow (less than seven feet wide) along much of the corridor, placing pedestrians very close to the high-speed traffic. Narrow on-street parking lanes induce cars to park partially on top of the curb, narrowing the width of sidewalk available to pedestrians even further. This unpleasant pedestrian environment, combined with the fact that there are few non-auto-oriented destinations along Route 9 East, leads to very little foot traffic.

There are few connections between the neighborhoods of the study area, with only two major crossings of Route 9 East (at Washington Street and at Cypress Street) and one additional pedestrian crossing at the Old Lincoln School and Boylston Street Playground. Signal timing at

Figure 3.5: Comments from phone interviews with stakeholders.

Figure 3.6: Parking availability in the Route 9 East corridor.

Figure 3.7: Bordered by a steep incline and tight parking lane create an unpleasant pedestrian experience on these narrow sidewalks.

the intersections currently prioritizes vehicle throughput over pedestrian safety. The Cypress Street intersection only allows 20 seconds for the pedestrian cycle, making crossing rushed and stressful, particularly for those with impaired mobility and for young children.

Existing cycling facilities in the corridor are limited and disconnected. There are bike lanes on Cypress Street south of Route 9 East, but they do not continue to the north. In addition, there are bike lanes on Washington Street and Harvard Street going north from Brookline Village, but these do not continue south on Washington Street and High Street. There are no bike facilities on Route 9 East, with Davis Avenue or Walnut Street serving as the primary east/west bike routes in the vicinity of the study area.

Parking for both commercial and residential uses within the study area is a major concern of Brookline residents and businesses. Many cite a lack of adequate parking as a primary challenge facing businesses in the corridor, particularly the storefronts at the Cypress Street intersection. Public parking in the study area is predominantly on-street, non-metered parallel parking. On-street parking availability is limited by the narrow width of the parking lane, school zone restrictions around the Old Lincoln School, and a lack of consistent or coherent time restrictions for many of the spaces.

Another challenge for development is that Route 9 East is constrained by physical barriers: the MBTA Green Line tracks to the north, and a steep grade change to the south. As a result, many lots are narrow and small, hindering the potential for large-scale development.

Route 9 East lacks the types of neighborhood retail and services that are desired by residents. Much of the commercial space is devoted to automobile uses: an Audi dealership, a U-Haul, two gas stations, and six auto repair shops. The area does have some restaurants that residents and visitors patronize, such as La Morra and Rifrullo Cafe, and some specialty shops that draw a regional clientele such as The

Figure 3.8: Storefronts along Route 9 East near Cypress Street.

Figure 3.9: Existing zoning.

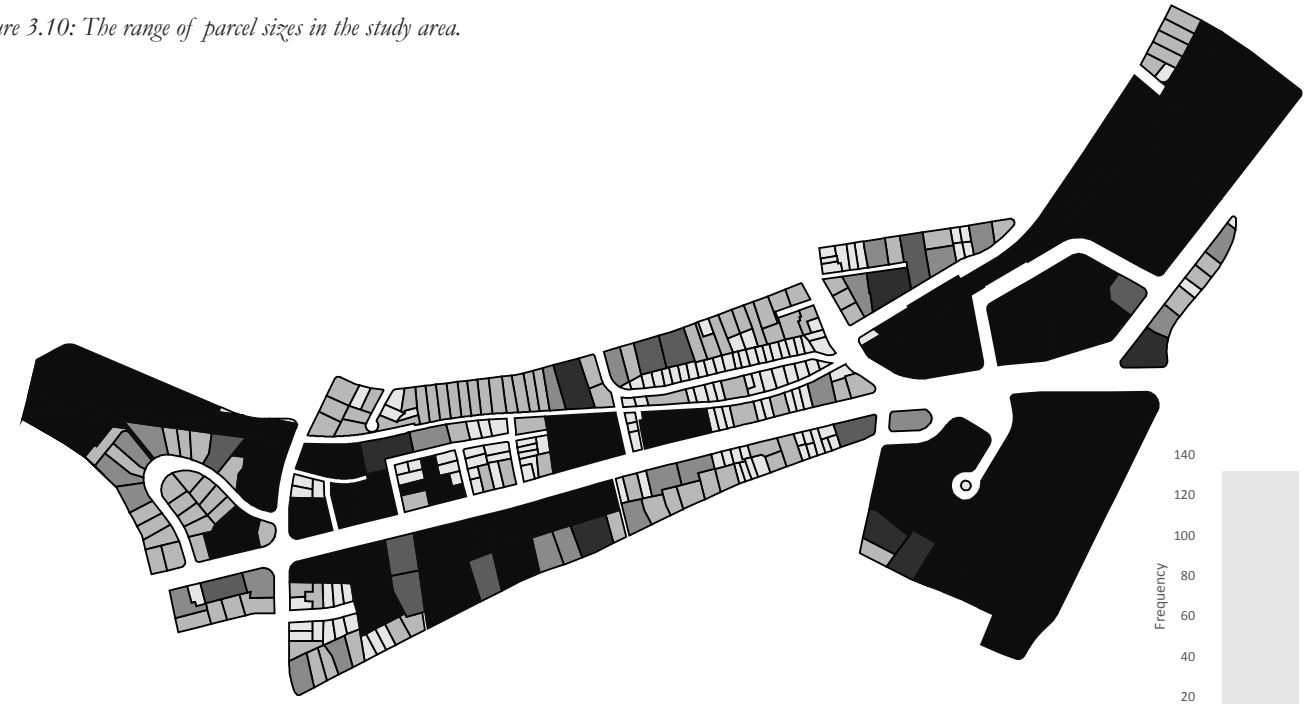
Von Huene Workshop and East Coast Divers. However, residents have expressed a desire for more retail and restaurants to serve demand in the neighborhood.

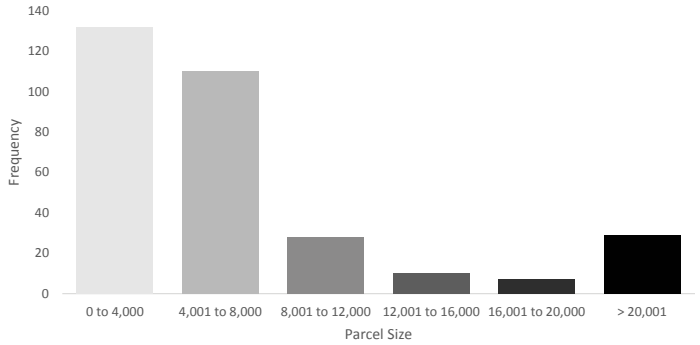
Due to business turnover, vacant buildings, and lack of property maintenance, many of the storefronts along the corridor are in disrepair. This is particularly an issue for the storefronts directly west of the Cypress Street intersection. Stakeholders have expressed a desire for aesthetic improvements along the corridor, including renovated façades, street trees and landscaping, and historic building preservation.

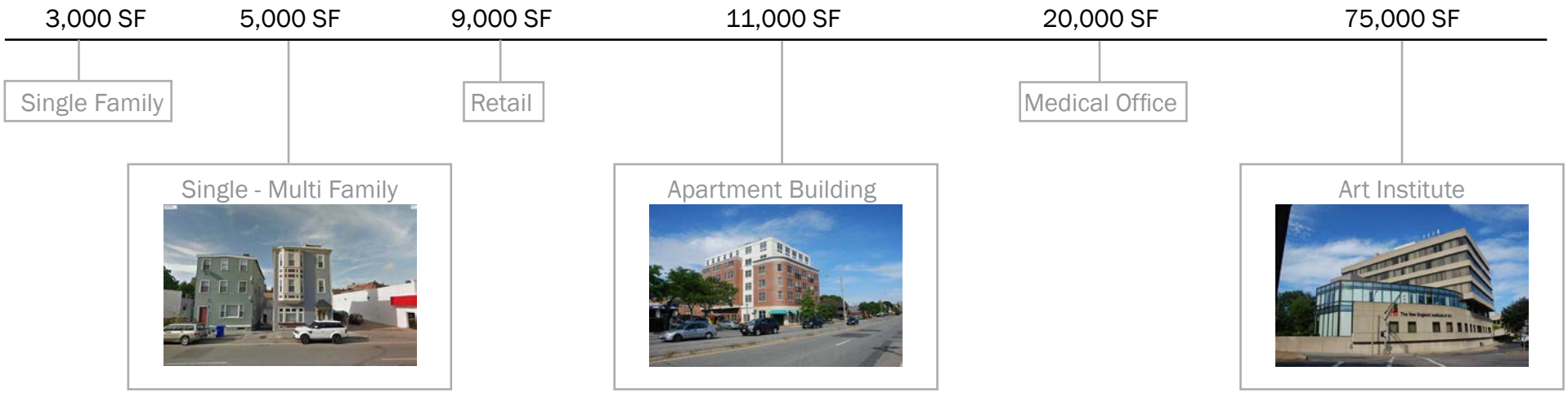
Brookline's current zoning requirements pose a challenge for potential developers. The majority of Route 9 East is in the General Business (G) zoning district. Some of the lots on and just west of Cypress Street are zoned Local Business (L), which limits the types of stores and restaurants allowed to those smaller than 5,000 square feet serving local needs. Both of these zoning districts have very low maximum FAR restrictions: 1.0 and 0.5 FAR, respectively (see Zoning Glossary in Section 5). A small industrial district (known as the Industrial Island) directly west of the Boston border and the Riverway also has a maximum FAR of 1.0.

Developers who wish to exceed FAR restrictions or adopt uses that are not allowed in the Zoning Bylaw by right must obtain a special

Figure 3.10: The range of parcel sizes in the study area.







permit from the Town. This process is often lengthy and creates uncertainties for developers, making the prospect of developing in this area less appealing and often infeasible. Although the Town is sometimes able to negotiate public realm improvements in exchange for granting a special permit, this happens on a case-by-case basis. There are no clear expectations for either developers or the Town guiding the required trade-offs between additional density bonuses and public benefits.

Assets and Opportunities

Route 9 East is a prime location for transit-oriented development (TOD). The majority of the study area is located within a quarter mile radius of one of two MBTA Green Line stops: Brookline Hills or Brookline Village. The entire study area falls within a half-mile radius of either of these stops.

As a major commuting road in and out of Boston, Route 9 East serves many drivers each workday. Although the traffic poses a challenge, it also represents an untapped asset for businesses: a pool of potential customers who travel through the corridor twice per day and could patronize businesses there if given a reason to do so.

There is not a lot of foot traffic on Boylston Street itself, but many pedestrians walk on Cypress and Washington Streets, and pedestrian traffic crossing Route 9 East is quite heavy. Sidewalks at the Cypress Street intersection often get heavily congested with commuters walking to and from the Brookline Hills T station and students going to and from Brookline High School. These pedestrians represent many potential customers for businesses in the area.

Route 9 East has access to parks and open space, including the Emerald Necklace, a linear park system designed by Frederick Law Olmsted that is a major recreation and historic site for people throughout the Boston metro area. There are also several neighborhood parks in or near the corridor, including the Boylston Street Playground, Cypress Street Playground, and Emerson Park.

Figure 3.13: Fire station and the Brookline Bank building (next page) are iconic buildings near Brookline Village.

Several iconic and historic buildings provide visual interest and act as landmarks to help with orientation along the corridor. These include

Figure 3.11 Area within ¼ mile of MBTA Green Line stops.

Figure 3.12: Gateway East Project Plans – 25% Design. Image Source: Gateway East Project 7/23/15 Presentation

the former Brookline Bank building, the fire station, and the Old Lincoln School.

Two projects currently under development will greatly increase the viability and safety of walking and biking along Route 9 East. The Emerald Necklace Bicycle and Pedestrian Crossing project will construct a new path between River Road and the Muddy River, as well as an improved crossing for bicyclists and pedestrians where the path crosses Route 9 East. The MassDOT Gateway East project has proposed protected bike lanes along Route 9 East between the Jamaicaway and Washington Street, making for a safer cycling connection to Brookline Village.

Finally, the Boston metro area is in the midst of a booming real estate market, and Route 9 East is poised to capitalize on this prosperity due to its adjacency to Boston and availability of developable parcels. The recent development of the Homewood Suites Hotel at 111 Boylston Street indicates that under the right circumstances, developments of significant scale can happen along the corridor. This vision plan sets out a strategy for achieving development that meets the needs of the town by addressing many of the challenges present on Route 9 East today while taking advantage of the area's opportunities.

Results from Community Engagement

Interactions with Brookline residents yielded a wealth of information about the needs of the community and thoughtful ideas for the Boylston Street of the future. Public input gathered from telephone interviews throughout October and November and two public meetings (October 28 and December 2, 2015) indicates that Brookline residents are ready to engage in a proactive transformation of the corridor.

Residents raised concerns about the pedestrian experience along the corridor as well as the need to attract businesses to the area that would draw in passersby and serve the surrounding neighborhoods. Community members also discussed the perennial challenge of finding parking in the study area, the inefficient use of private surface parking lots, and an overemphasis on auto-oriented uses.

To enhance the walkability of the study area, community members discussed:

- Widening the sidewalks;
- Making existing crosswalks safer and installing additional crosswalks;
- Introducing traffic calming measures;

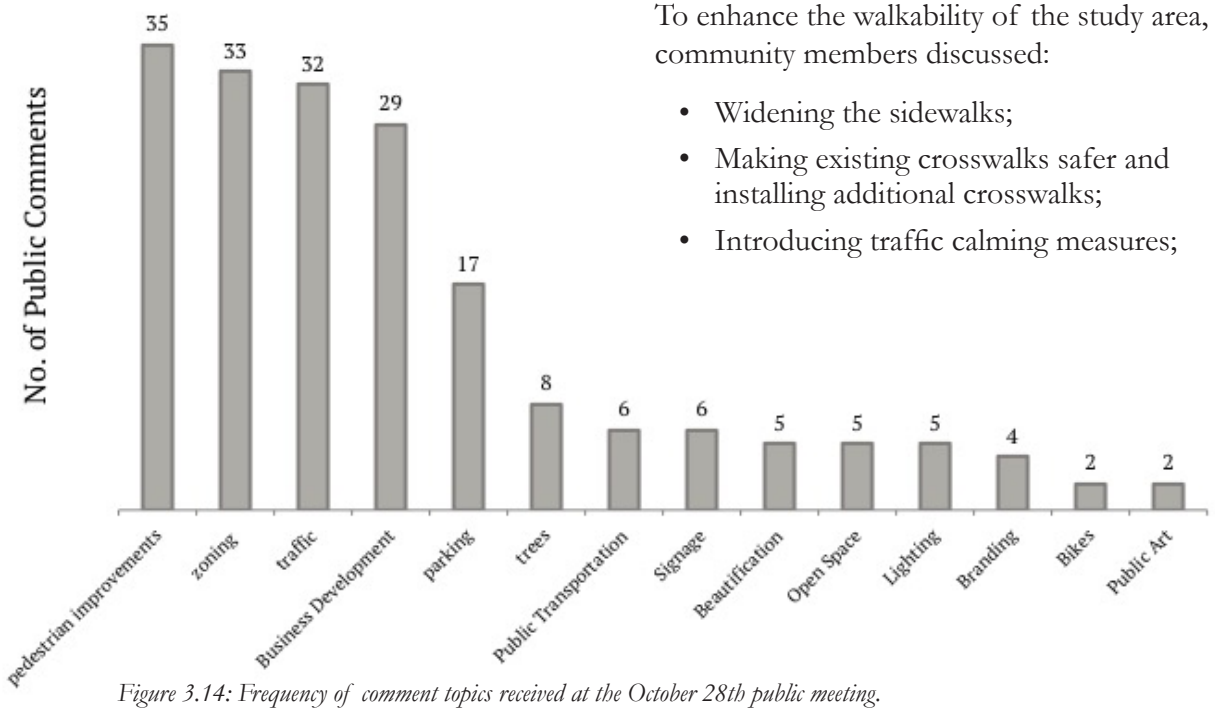


Figure 3.14: Frequency of comment topics received at the October 28th public meeting.

- Improving the lighting and signage;
- Sharing the street with bicycle infrastructure and sheltered bus stops;
- Encouraging transit-oriented development;
- Providing more frequently spaced street trees and better landscaping;
- Implementing creative parking solutions and lowering the minimum amount of parking required by the Zoning Bylaw;
- Ensuring a better year-round maintenance of the roadway and sidewalks.

Ideas for making Boylston Street livelier included:

- Re-branding the corridor from "Route 9 East" to "Boylston Street" and giving new names and identities to key locations;
- Encouraging community-centered retail and restaurants;
- Creating multi-use spaces for living and working;
- Creating makerspaces and co-working spaces for entrepreneurs;
- Upgrading and beautifying building façades.

The community also asked for zoning solutions that would proactively shape the corridor by bringing in favorable development and filling underutilized sites and street frontages with livelier uses.

During a mapping exercise at the October 28 public meeting, residents revealed a desire to see transformative change in key areas such as the Cypress Street intersection, the Industrial Island at the eastern end of the study area, and the auto-oriented sites at the center of the study area. At the end of this meeting, multiple participants called for bold and practical action to transform the corridor.

Figure 3.15: Comments from the October 28th public meeting.

Table 3.1: Market analysis: demand currently being met in the study area.

Potential Development	Demand Drivers	Logistics/Suitability (Positive or Negative)
Hotel	• Shortage of hotel rooms in the Boston metro area • Homewood Suites proven model for district	• Proximity to T stations (+) • Proximity to LMA (+) • Limited impact on town (+) • Larger parcels (~ 20,000 SF) and sufficient density (~ 5 to 6 stories) required (-) • Potential zoning relief needed under current zoning (-)
Medical Office	• Expanded medical office uses at Brookline Place • Expiring lease at 111 Cypress Street	• Proximity to T stations (+) • Proximity to LMA (+) • Large buildings required (-) • Market already well-supplied (e.g., Brookline Place, Art Institute) (-)
Residential	• High-performing schools and strong regional economy spur residential demand	• Proximity to T stations (+) • Proximity to LMA (+) • Proximity to Brookline High School (+) • High minimum parking requirements (-)
40B (Affordable Housing)	• Town nearing 40B affordable housing requirement threshold (10%)	• No zoning relief needed (+) • 25% of units affordable (+)

Market Analysis

The economy of the Boston metro area is currently very strong and real estate development activity is robust. The study area's proximity to Boston and good connectivity to Cambridge makes it an attractive location for a variety of markets. Current and proposed projects in the Route 9 East area have drawn mostly hotel, medical office, and residential development to date. These projects are responding to the unmet demand for office space and hotel rooms generated by the Longwood Medical Area (LMA), as well as the desirability of Brookline as a residential area. However, research and insights from developers, realtors, and Brookline's Economic Development Advisory Board (EDAB) indicate that there are still untapped markets suitable for the Route 9 East Gateway area.

The need for business incubation spaces and office space spills over from Boston and Cambridge's innovation industries. Route 9 East is an ideal location to increase the supply, since many of those professionals already live in Brookline. A recent CityLab study ranked Brookline as the number five "Creative Class City" in the country, with creative professionals representing 74% of the workforce — more than any other municipality in the state. Creative professionals refer to high-paid workers in fields like science and technology; arts, culture, media and entertainment; business and management; and health care and education.[1]

Study area residents frequently mentioned in phone interviews and community meetings that there is a need for more restaurants and retail on Route 9 East. Additionally, new projects such as the Homewood Suites Hotel and Children's Hospital development at One Brookline Place will generate additional demand for dining and shopping amenities. These new projects can create the critical mass needed to support a broader retail offering along the corridor, combining neighborhood-serving stores such as a grocery store and destination retail.

The tables on this page summarize the strengths and weaknesses of markets currently present in the study area as well as those that have unmet demand.

Table 3.2: Market analysis: current unmet demands in the study area.

Potential Development	Demand Drivers	Logistics/Suitability (Positive or Negative)
Makerspace, Co-working Offices, Incubator Space	• Massachusetts ranked at top in entrepreneurship • Potential synergies with LMA • Perceived shortage of co-working space in Brookline	• Proximity to LMA (+) • Proximity to T stations (+) • Competition with Kendall Square and Boston's Innovation District (-) • Typically part of larger developments, not the development driver (-)
Retail / Restaurant	• Growth in demand from Homewood Suites and Brookline Place developments	• Can be easily accommodated as ground floor of larger developments (+) • Desire for retail such as bike repair shops or gym (+) • Unsafe environment for pedestrians (-) • Lack of accessible parking (-)
Grocery Store / Health Food Store	• Growth in demand from Homewood Suites and Brookline Place developments	• Can be easily accommodated as ground floor of larger developments (+) • Desire for a grocery store in community (+) • Unsafe environment for pedestrians (-) • Lack of accessible parking (-)

Section Endnote

[1] Florida, Richard. "America's Leading Creative Class Cities in 2015." CityLab, *The Atlantic.* April 20, 2015. Accessed December 11, 2015. http://www.citylab.com/work/2015/04/americas-leading-creative-class-cities-in-2015/390852/.

4 RECOMMENDATIONS

4 RECOMMENDATIONS

VISION STATEMENT

Boylston Street will be a lively and cohesive destination, connecting the surrounding neighborhoods with multi-modal transportation, innovative commercial uses, and inviting public spaces. This vision will be realized over time as the street becomes safer for pedestrians and as new development is achieved along the corridor.

The Town of Brookline should adopt a strategy that leverages recent development successes, builds public benefits into future proposals for new projects, and targets investments at key nodes along the corridor. By pairing a clear vision with concrete steps for implementation, the Town will attract development that meets community needs, diversifies local businesses, and creates an attractive, welcoming Boylston Street.

This section presents specific development recommendations at three key catalyst sites and a corridor-wide Complete Streets strategy for Boylston Street itself. Improvements will occur in phases, beginning with quick design interventions, transitioning to transformative mixed-use real estate projects, and ending in a vibrant, multi-modal Boylston Street.

Phasing Strategy

Phase I: Improve Connections in the Near Term (Next Five Years)

Phase I improves north-south connections across Boylston Street at key intersections. Current conditions make for a challenging and even dangerous journey to cross the street, causing pedestrians to avoid the corridor altogether. Existing plans for Gateway East at Washington Street and proposed connections to the Emerald Necklace will improve pedestrian and bicycle access at the eastern end of the corridor. Phase I expands the focus on connections to the entire study area by improving Walnut Path, extending crossing times at existing crosswalks, and introducing urban design features to increase pedestrian safety. Within five years, Boylston Street will boast a safer and more permeable environment for pedestrians, connecting neighborhoods to its south with destinations to the north.[1]

Phase II: Enhance Centers of Activity (Five to Ten Years)

Phase II creates new destinations at existing centers of activity to tap into the rising resident and developer interest in Boylston Street. It builds upon the momentum created by the development of the Homewood Suites Hotel and One Brookline Place by introducing complementary businesses that will attract additional foot traffic. Within ten years, Brookline residents will be encouraged to walk to Boylston Street, patronize local businesses, and enjoy an increasingly pedestrian-friendly atmosphere.

Phase III: Improve and Build Out Corridor (Ten+ Years)

Phase III addresses transportation and mobility conditions along the corridor and encourages additional infill developments to connect Boylston Street's humming centers of activity. Complete Streets policies transform a car-dominated state highway into a multi-modal transportation asset. By filling in the corridor with mid-rise, mixed-use development and reconfiguring the highway into a safer and more pleasant walking and biking thoroughfare, Boylston Street will be transformed into a desirable place to live, work, shop, and visit.

Phase I: Improve Connections in the Near Term (Next Five Years)

Figure 4.1: Phase I improves pedestrian connections at the Emerald Necklace, Washington Street, Walnut and Davis Paths, and Cypress Street.

Phase II: Enhance Centers of Activity (Five to Ten Years)

Figure 4.2: Phase II builds upon momentum at existing centers of activity.

Phase III: Improve and Build Out Corridor (Ten+ Years)

Figure 4.3: Phase III introduces Complete Streets strategies and expands development to the entire corridor.

Catalyst Sites

The vision for an active, cohesive, and connected Boylston Street will not be achieved overnight. By focusing on three key nodes along the corridor, the Town of Brookline can realize its vision in concrete, feasible phases.

These catalyst sites are designed to kick-start the transformation of Boylston Street in areas that already have momentum. Whether they are tapping into pedestrian traffic heading to parks, transit, or schools or building off real estate projects currently underway, the catalyst sites will become go-to destinations along the corridor.

Catalyst Site Selection

The three priority catalyst sites, strategically located at key nodes along the corridor, consist of clusters of parcels that are ripe for redevelopment. These three sites were identified through the community engagement process and evaluated based on their potential for redevelopment.

Recommendations for each catalyst site include suggested types of development, target markets, building form and design, and public realm improvements. The proposed character and rebranding of each node capitalizes on existing assets and envisions new uses that will better serve Brookline residents and visitors.

The three catalyst sites are:

1. **Cypress Junction:** A neighborhood and education hub at the intersection of Cypress Street and Boylston Street;
2. **Emerald Island:** A mixed-use development with a focus on recreation, sustainability, and active living adjacent to the Emerald Necklace;
3. **Boylston Terrace:** A community-oriented destination at the center of the Boylston Street study area.

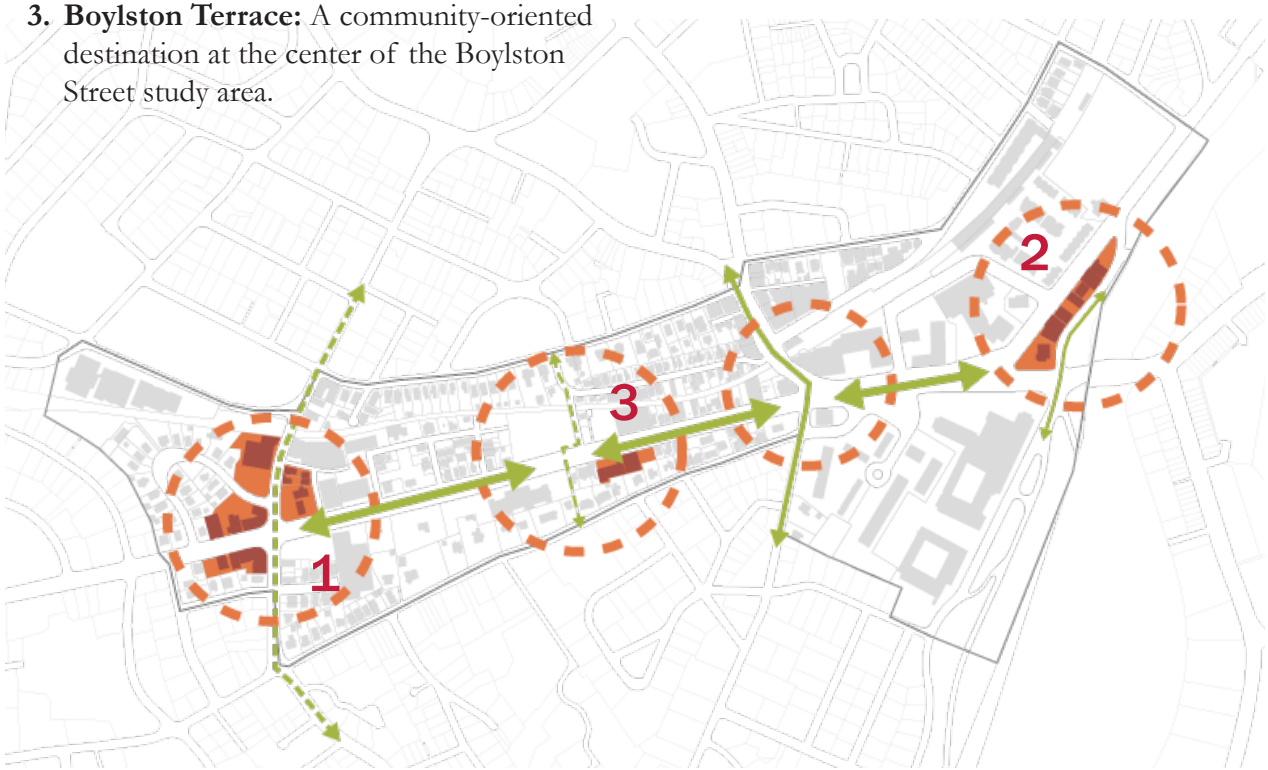


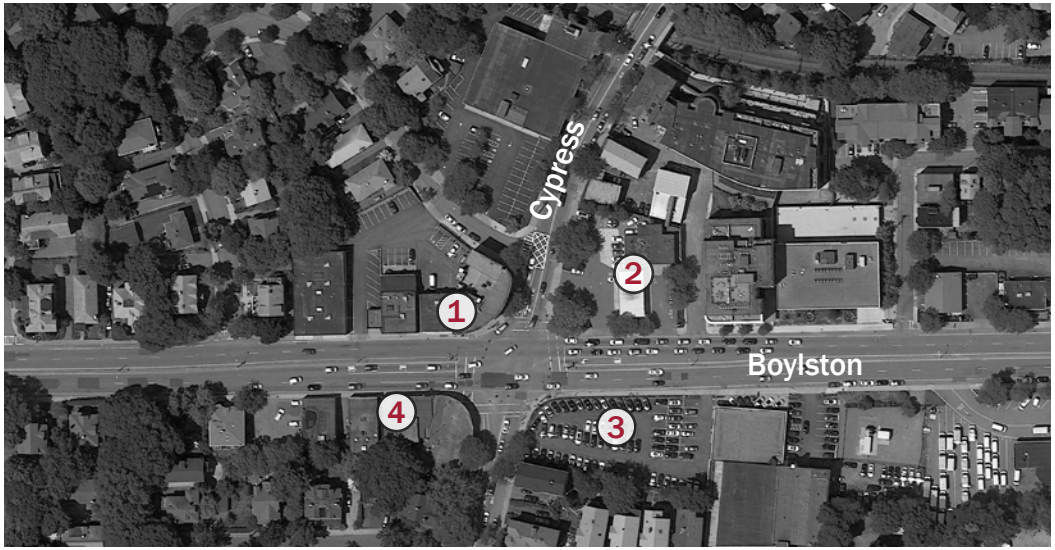
Figure 4.4: The three priority catalyst sites are: 1) Cypress Junction; 2) Emerald Island; and 3) Boylston Terrace.

CYPRESS JUNCTION

Cypress Junction will connect the residential neighborhoods north and south of Boylston Street at the intersection of Cypress Street through mixed-use development that creates a functioning, active neighborhood center. It will pair development that serves nearby residents, including retail and an expansion campus for Brookline High School, with developer incentives and design guidelines that ensure public realm enhancements and improve the pedestrian experience.

This catalyst site includes:

1. A Brookline High School campus expansion with neighborhood retail on the ground floor;
2. Mixed-use developments at 345 Boylston Street and 358–374 Boylston Street;
3. The expansion of the Audi dealership at 308–328 Boylston Street that includes public benefits;
4. Public realm improvements including wider sidewalks, new crosswalks, increased cross times, and curb bump-outs.



Existing ground floor retail

Underutilized parcel

Uninviting storefronts

Auto-oriented use

Figure 4.5: Existing character of Cypress Junction.

Why Cypress Junction?

Located at the western end of the study area, the intersection of Cypress Street and Boylston Street is a critical focal point for Brookline residents and businesses. Two residential neighborhoods border the intersection, and the Brookline Hills T Station and Brookline High School are less than a quarter-mile away. Historically, this area served the surrounding neighborhood as a convenient place to shop, eat, and gather. For example, Sealy's Lunch was a neighborhood favorite for 18 years, but closed its doors in 2013. Today, the intersection is characterized by heavy traffic during rush hour, speeding cars during off-peak hours, and a high volume of pedestrians commuting on Cypress Street to the Brookline Hills T Station or to Brookline High School. Current retail includes ACE Tickets, a computer store, a skate shop, an Asian antiques store, Brookline Tai Chi, and Airo Sports. Other uses include medical offices, a Mobil gas station, an Audi showroom, and a small number of residential apartment buildings. Several storefronts are occupied but rarely open for business, while others are vacant and advertised for lease. Many storefronts show signs of neglect or disrepair. As a result, the intersection poses a missed opportunity for an active community hub. Pedestrians and vehicles pass through the intersection rather than stopping to enjoy its amenities.

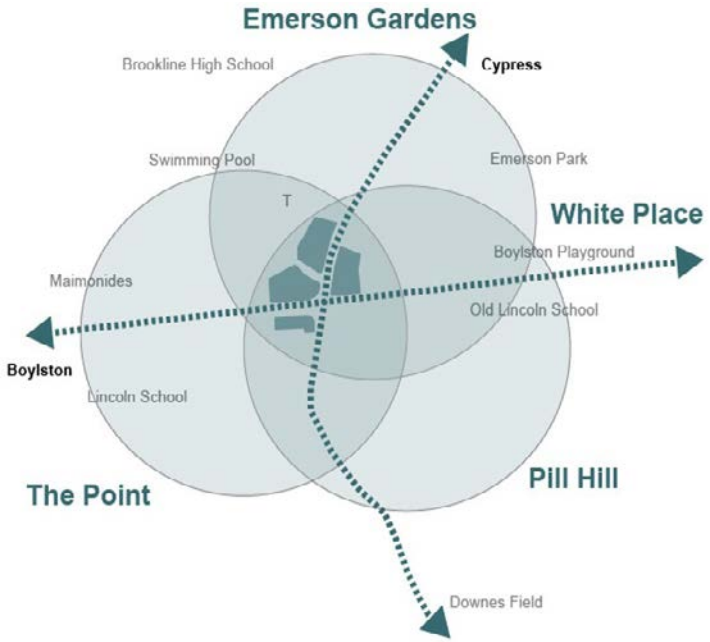


Figure 4.6: Cypress Junction connects several historic Brookline neighborhoods and local amenities.

The Cypress Street intersection was one of the most mentioned areas at the October 28, 2015, public meeting at Brookline Town Hall. Residents and business owners made the following recommendations to the project team:

- Consider space for expanding Brookline High School;
- Improve access to the Brookline Hills T Station;
- Widen and improve the sidewalks;
- Add height and density;
- Add mixed-use development with ground floor retail;
- Create community "hang out" space;
- Address lack of parking.

Recommendations for Cypress Junction

Mixed-use Developments that Blend with Neighborhood Character

Cypress Junction will feature mixed-use developments with ground floor retail, on-site parking, and public realm improvements at 345

Figure 4.7: Existing parcels and building footprints (left) and proposed concept plans for Cypress Junction (right).

Boylston Street (currently a Mobil station) and 358–374 Boylston Street (ACE Tickets and other storefronts). These developments will be designed to blend with existing neighborhood character and incorporate higher-density development where appropriate. Ground floor neighborhood retail such as a restaurant, small grocery store, pharmacy, fitness center, or child care center will capitalize on the high volume of foot traffic and create visual interest and appeal. New developments will offer incentives for developers to create neighborhood amenities such as expanded sidewalk space for street furniture, trees, and a safe pedestrian experience.

Large, catalytic development is possible at Cypress Junction because several existing parcels are over 20,000 square feet, which is rare in the study area. These parcels are currently built at low densities with a high percentage of surface area designated for parking. Given the demand for development in Brookline and the steady stream of pedestrian traffic at Cypress Junction, these sites could support more density and a diversity of targeted uses. Increased building height is feasible due to a lack of residential abutters, except for the southwest corner of Cypress Junction and immediately adjacent to the Audi site. Close proximity to public transit at the Brookline Hills T Station will alleviate pressure on parking demands and encourage pedestrian traffic.

Brookline High School Campus Expansion

Brigham and Women's Hospital's administrative office is leaving 111 Cypress Street when its lease expires, creating an opportunity for the Town to acquire this site for high school expansion. An extension to the Brookline High School campus at 111 Cypress Street will anchor the redevelopment of Cypress Junction. This parcel is ideally situated near the main Brookline High School campus and is large enough to accommodate

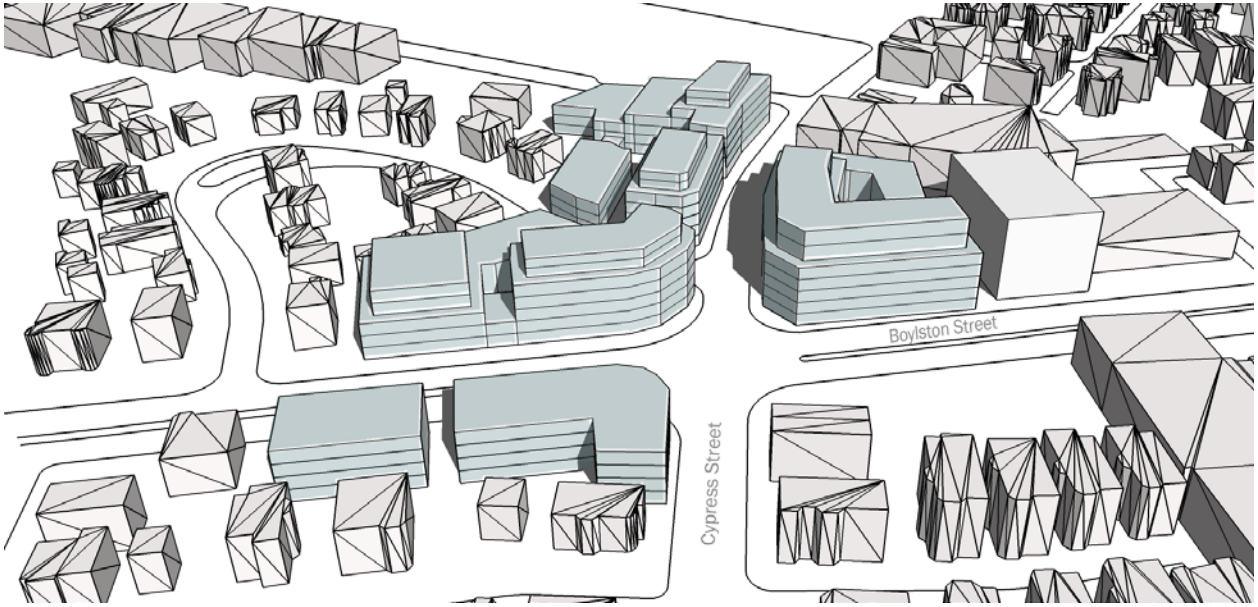


Figure 4.8: Potential building massing for Cypress Junction (FAR shown: 2.0 to 4.0).

Figure 4.10: Aerial view of Cypress Junction showing the location of the section shown below.

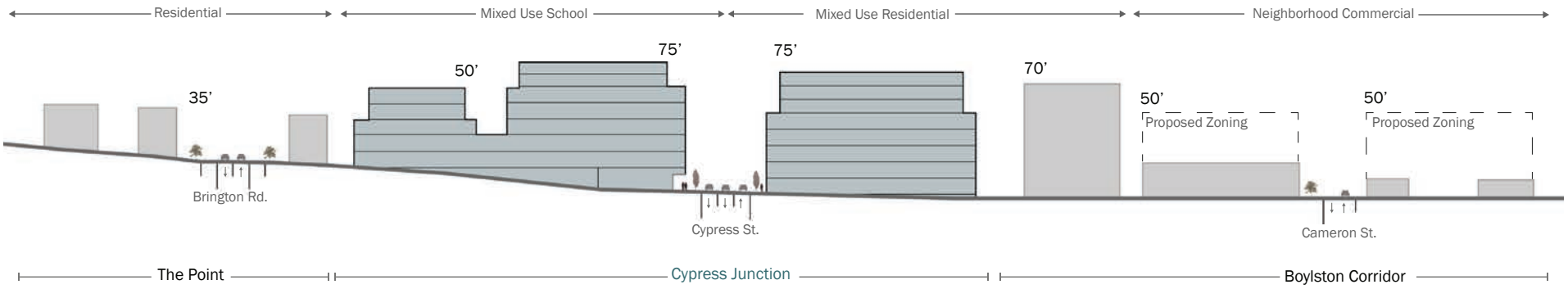


Figure 4.9: Section for Cypress Junction showing relationship with surrounding neighborhood. Proposed massing is sensitive to existing and future abutters.

Mixed-Use School – Teacher's Village

The concept of a mixed-use school is innovative but not without precedent. One example is Teacher's Village in Newark, New Jersey. This complex includes three new schools, 28 retail stores, and 213 residential units marketed to teachers. Like Cypress Junction, Teacher's Village is rich in amenities like proximity to parks, shops, and transit.[2] Brookline's version adds the potential for flexible office space that increases the tax base and adapts to the needs of the school system. Research on this new concept reveals many benefits of mixed-use schools:

- Efficient use of available space;
- Increased interactions between schools, parents, and the surrounding community;[3]
- Opportunities for schools to share resources with residents, such as gymnasiums or classrooms for adult education;
- Generates capital revenues to offset school development and maintenance costs.[4]

Figure 4.11: Teacher's Village mixed-use school, Newark, NJ. Image Source: Teacher's Village Website, www.teachersvillage.com

a variety of educational uses. Its location near the Brookline Hills T Station also allows flexibility in building programming as the space could easily accommodate office as well as school uses. The new building will include retail on the ground floor to integrate the school into the community and provide space for a range of uses. Public realm improvements will include a courtyard for students to congregate and a new pedestrian bridge over the T tracks to create a direct connection between the two high school campuses.

Two locations, 131 Cypress Street and 361 Boylston Street, make up the parcel south of 111 Cypress Street. This site is ideal for a flexible, mixed-use school development. Ground floor retail will enhance the streetscape, while upper floors will be designed to fluctuate between office space and additional school space, depending on the needs of the school system. This cutting-edge, innovative approach will give Brookline Public Schools the flexibility it needs without creating wasted space in years when enrollment is lower.

Expansion of Audi Dealership at 308–328 Boylston Street with Public Benefits

The Audi dealership on the southeast corner of the intersection has submitted preliminary plans for a major expansion of their building footprint in fall 2015. The proposed site plan calls for a two-story building for a new showroom and administrative offices and a four-story parking garage. Neighbors have

Figure 4.12: Example of four-story mixed-use development, West Hartford, CT.

Figure 4.13: Preliminary plans for Audi Expansion, Southeast Corner of Cypress Street and Boylston Street (09/25/15). Image Source: Regent Associates, Inc. Architects, Audi Brookline Major Impact Preliminary Plans

expressed concern regarding traffic, noise, and the aesthetics of the proposed massing.

The plan must be approved through a Design Review process negotiated through the Planning Board. These negotiations present an opportunity for Brookline residents and town officials to share their visions for the corridor and create design guidelines for this and other new projects. The approvals process for the development might include public benefit bonuses such as public realm improvements, easements to expand sidewalks, or designated public parking spaces in the proposed four-story parking garage.

Pedestrian Safety and Public Realm Improvements

Residents frequently describe unpleasant pedestrian experiences at Cypress Junction. Sidewalks are narrow, there are no trees for shade or benches for resting, and the busy intersection is considered dangerous. In order to improve the Junction, these public realm issues must be addressed during the redevelopment process. In addition to new buildings and uses, future improvements should focus on the health, safety, and welfare of pedestrians.

The following recommendations are designed to achieve this goal at Cypress Junction:

Figure 4.14: Potential public realm improvements at Cypress Junction.

- Increase the length of the walk signals at crosswalks;
- Improve crosswalk visibility with bold zebra striping;
- Install curb bump-outs to add space for pedestrians and shorten crossing distance;
- Install a pedestrian median;
- Improve wayfinding signage to key destinations such as the Brookline Hills T Station;
- Improve lighting for safety and to contribute to a sense of place.

Phasing Approach

Phase I (Next Five Years):

- Audi Expansion with public benefits
- Public realm improvements such as benches, trees, streetlights, and landscaping

Phase II (Five to Ten Years):

- Brookline High School Expansion
- Mixed-use development on the southwest corner of Cypress Junction

Phase III (Ten+ Years):

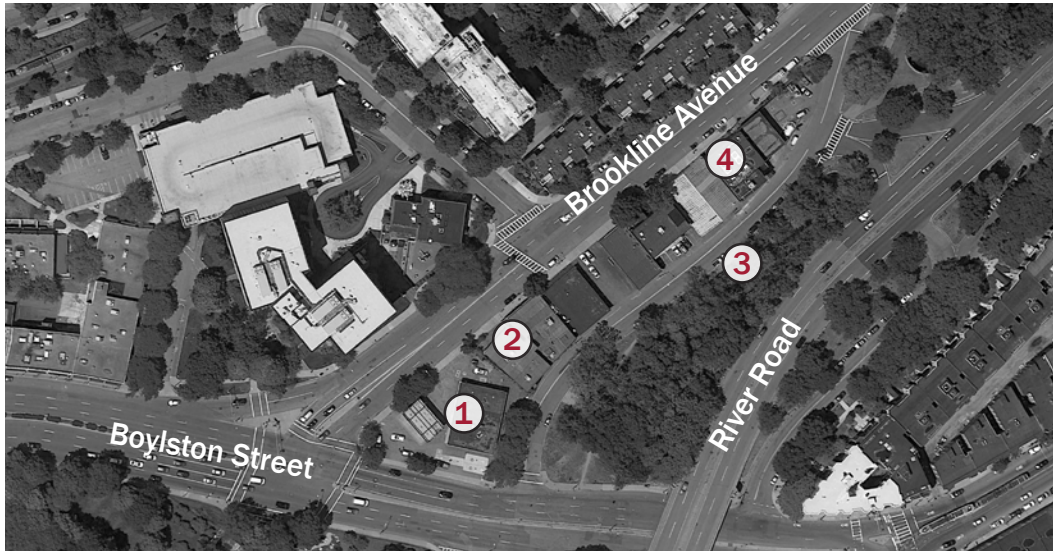
- Mixed-use development of 345 Boylston Street (Mobil Station)

EMERALD ISLAND

The Emerald Island will serve as a new gateway to Brookline by creating a lively center of activity, addressing local retail, commercial, and residential needs, and expanding on already planned traffic and infrastructure improvements. It will strengthen the connection to the Emerald Necklace through sustainable design and the creation of new open spaces.

This catalyst site includes:

1. Mixed-use development that addresses local retail, commercial, and residential needs;
2. A re-designed River Road with more space devoted to pedestrians and bicyclists;
3. Green spaces that seamlessly connect the Emerald Island with the Emerald Necklace;
4. Buildings designed to be resilient to potential flood risk while still addressing the needs of the community.



Gulf gas station

Animal hospital

Brookline Ice and Coal

Connections with the Emerald Necklace

Figure 4.15: Existing character of Emerald Island.

Why Emerald Island?

Located at the eastern end of the study area, the area currently known as the Industrial Island covers 1.2 acres between River Road and Brookline Avenue. It is a quarter-mile away from the Brookline Village T Station and adjacent to the Emerald Necklace.

The island is currently occupied by seven businesses, three of which are auto-oriented uses (Brookline Foreign Motors, Alignment Specialty Company, and Swanson Automotive Services). The other businesses include the Shambhala Meditation Center, VCA Brookline Animal Hospital, and Brookline Ice and Coal. A Gulf gas station at the corner of Boylston Street and Brookline Avenue recently closed. The Town of Brookline owns a 500 square foot parcel on the northern tip of the island. The Industrial Island is the only remaining area in Brookline zoned for industrial use, but only one business (Brookline Ice and Coal) has a use that is not allowed in other zones.

The buildings occupied by these businesses lack aesthetic appeal and the building fronts all face Brookline Avenue. As a result, the Island acts as a barrier between the surrounding community and the Emerald Necklace, and River Road currently has low pedestrian activity. However, bicyclists and runners do use the dirt path along River Road to run alongside the Muddy River and connect with other parts of the Emerald Necklace.

The Emerald Island's proximity to public transit, recreation space, and other projects in the pipeline such as Gateway East makes it an ideal catalyst site. During the first public meeting, community members expressed interest in transforming this area. Suggestions from the community included:

- Creation of a bicycle-only path;
- Improvements to the Emerald Necklace path and connections;
- Addition of more streetlights and green space.

Recommendations for Emerald Island

Mixed-use Development with Ground Floor Retail

As shown in the future concept plan, combining existing parcels and allowing buildings of increased height will allow for a mixture of uses such as retail, office, and residential. Increased height is recommended here because of the width of Brookline Avenue and lack of abutting uses. Retail uses such as a bike café, organic restaurant, fitness center, or ice cream shop can capitalize on the existing bicycle and pedestrian activity along the Emerald Necklace as well as from Brookline Village. Commercial space on the upper floors could include offices

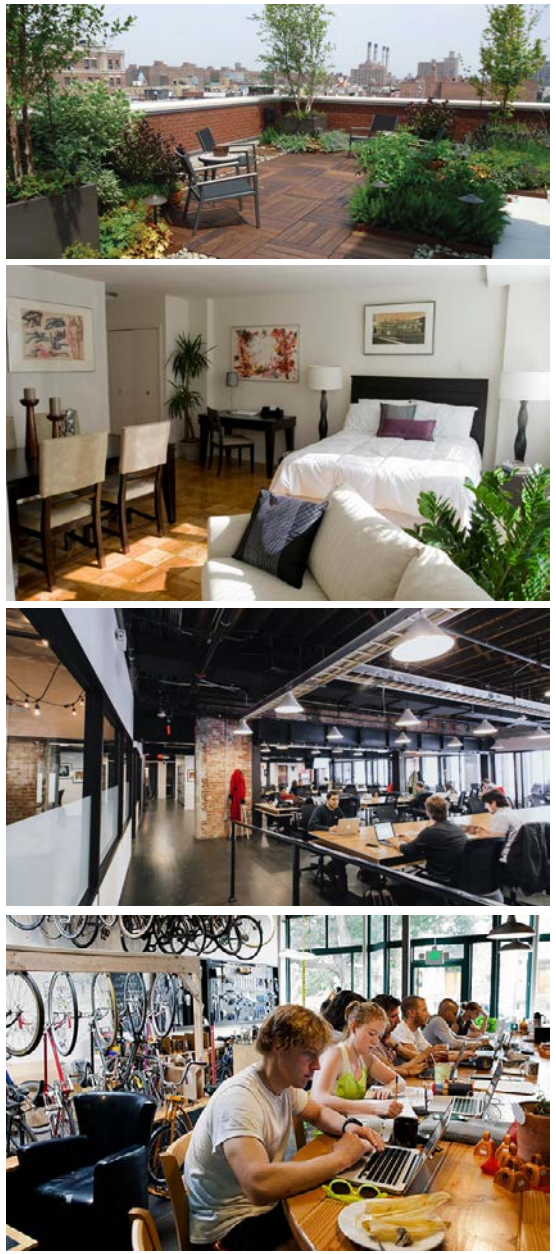


Figure 4.16: Potential uses for Emerald Island development (from bottom to top): Retail use – bike cafe, co-working office space, residential, rooftop garden terrace.
Images Sources: Marketwatch, WeWork, Lily-Rabe, VectorWorks

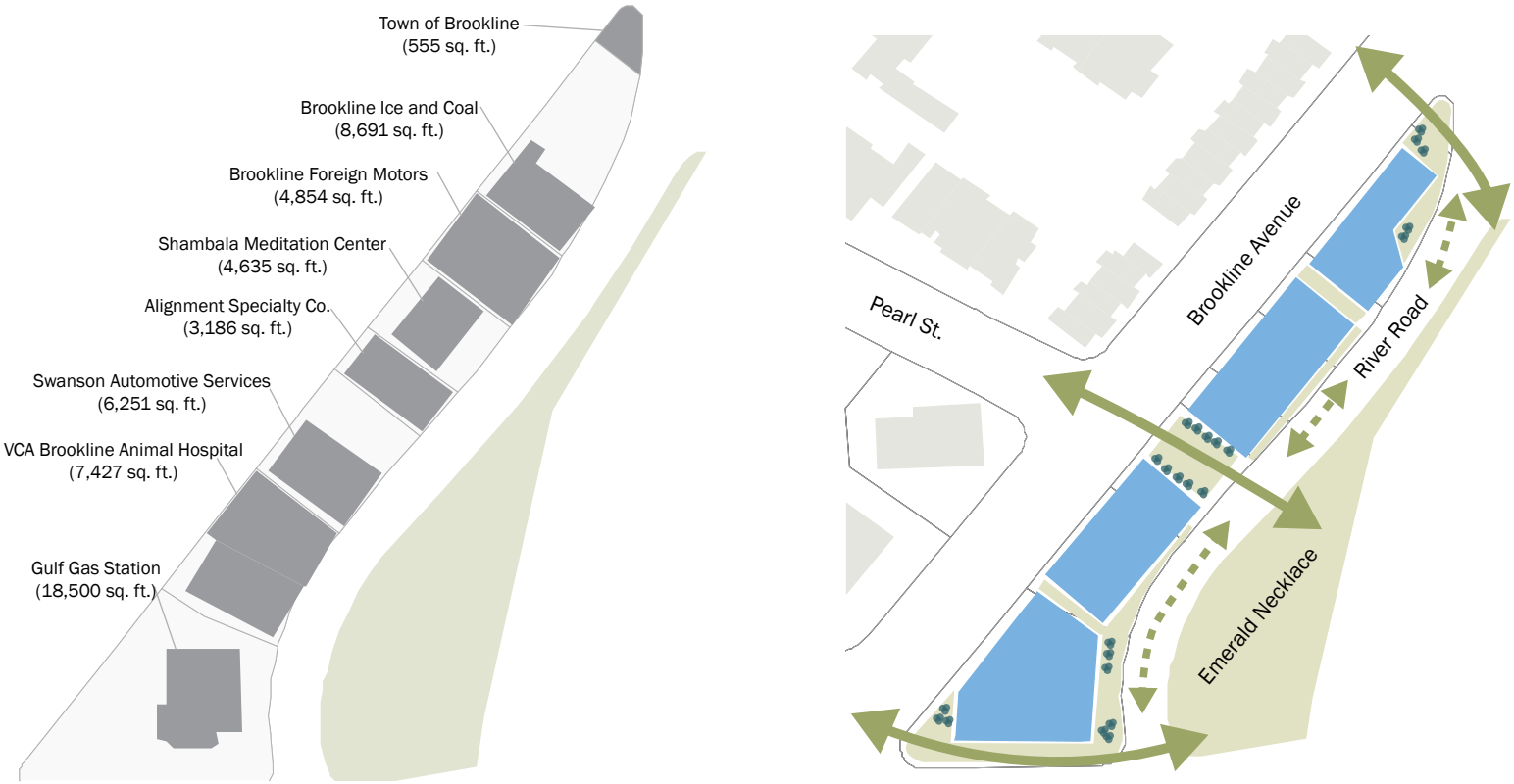


Figure 4.17: Existing parcels and building footprints (left) and proposed concept plans for Emerald Island (right).

and shared workspaces for arts and creative spaces. The top floors could also be devoted to small residential units that would attract young professionals working in the nearby Longwood Medical Area or downtown Boston.

Past and current industrial uses on the Emerald Island have led to the contamination of certain sites. The Massachusetts Department of Environmental Protection (MassDEP) has designated these sites as brownfields. A brownfield is a site that contains or potentially contains hazardous substance, pollutant, or contaminant that may affect the future reuse or redevelopment of the site. While remediation of brownfield sites is necessary for new development to occur, the cost of remediation is high, which could be borne by either the seller or the buyer of a property. For that reason, the added uncertainties of brownfield remediation could discourage developers to buy properties in the island. Allowing for more height and density in the area than what is currently permitted will allow new developments to absorb the cost of brownfield remediation rather than having it deter new development.

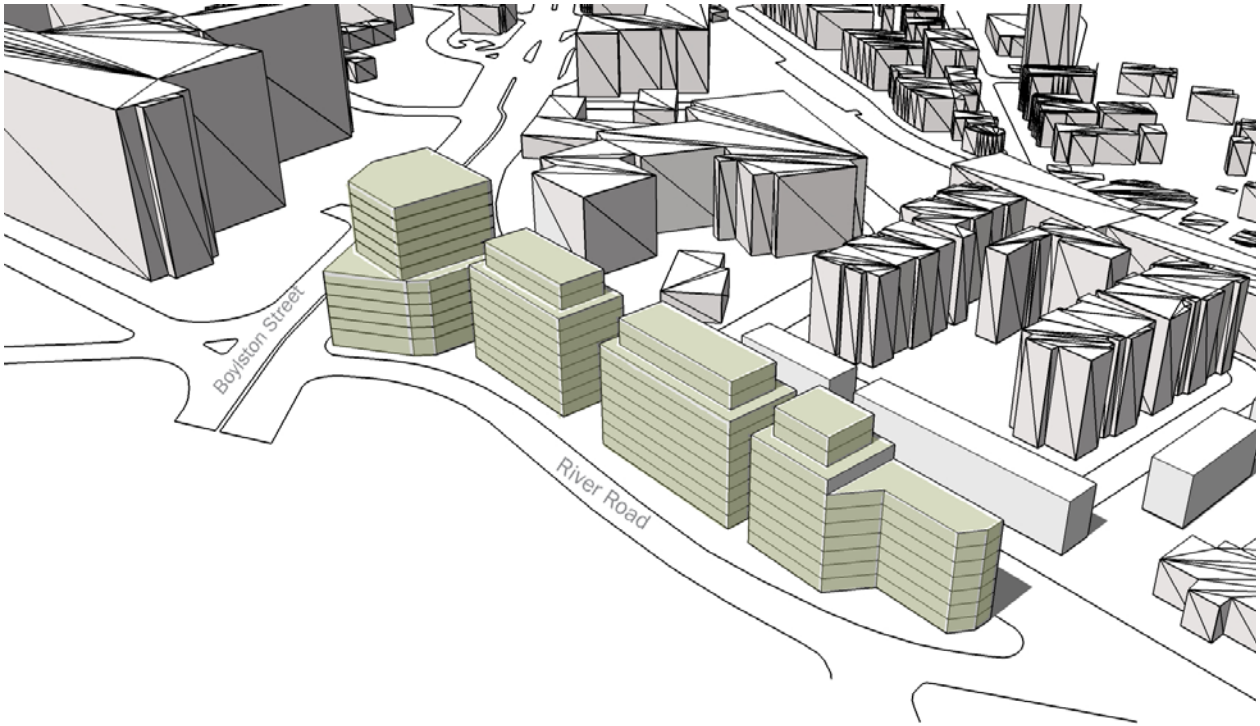


Figure 4.18: Potential building massing for Emerald Island (FAR shown: 5.0).

Figure 4.20: Aerial view of Emerald Island showing the location of the section shown below.

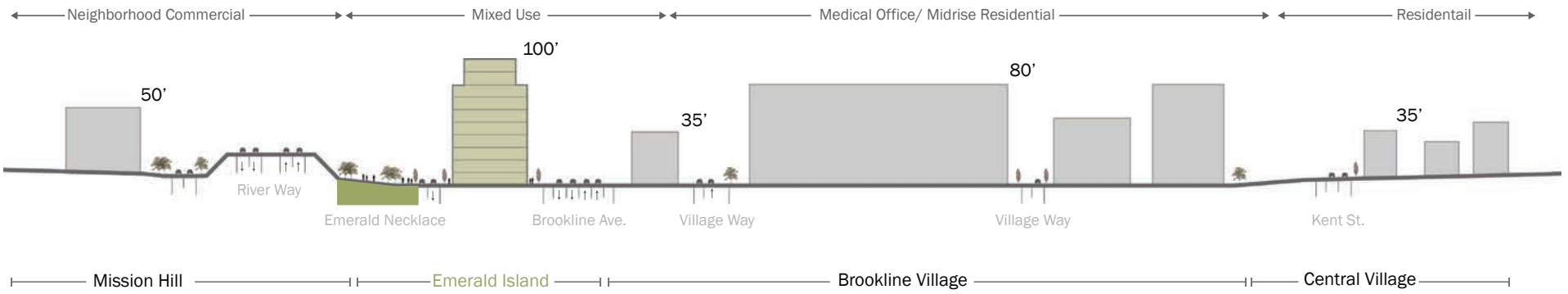


Figure 4.19: Section for Emerald Island showing relationship with surrounding neighborhood. Lack of abutters and proximity to other large projects allow for higher densities on Emerald Island.

Streetscape and Public Realm Improvements to River Road

Streetscape improvements to River Road will build upon the bicycle and pedestrian improvement plans of the Gateway East and Emerald Necklace Bicycle and Pedestrian Crossings projects.

The two projects have put in place plans to:

- Construct a new path between River Road and the Muddy River;
- Improve the crossing for bicyclists and pedestrians where the path crosses Boylston Street;
- Install protected bike lanes along Boylston Street between the Jamaicaway and Washington Street.

These changes, as well as a mixture of proposed uses in the Emerald Island that will increase foot traffic, make public realm improvements to River Road a critical component for its success. Transforming River Road into a one-way street will free up space that will be used for a wider sidewalk and trees, benches, and lighting. New bike racks will enable bicyclists traveling on the Emerald Necklace and along Boylston Street to patronize businesses on the Emerald Island.

Additional Green Spaces to Connect with the Emerald Necklace

Creating additional green spaces in the Emerald Island will enable seamless transition from the neighborhoods and Brookline Village to the Emerald Necklace. Pockets of green space can serve as pedestrian connections across the Island and enable easier access to the recreation space. Large buildings can be incentivized to include public pathways that connect pedestrians and bicyclists to the Emerald Necklace and the Brookline Village T Station. Green rooftops can provide building users and community members an outdoor gathering space with views of the Emerald Necklace below. Green infrastructure can contribute to stormwater management while creating additional green space.

Figure 4.21: Stormwater management bioswale implemented as part of street design.

Figure 4.22: FEMA Floodplain at the eastern end of the study area.

Designing for Flood Risk and Climate Change

The northern section of the Emerald Island lies in the Federal Emergency Management Agency (FEMA) 100-year floodplain. With flooding expected to increase due to climate change, it is likely that other parts of the Emerald Island will also be prone to flooding in the future. Encouraging developers to design for flood risk will place Brookline as a leading community in resilient building design practices that towns and cities across Massachusetts will need to adopt in the near future.

Building designs throughout the Emerald Island will be adapted to manage and withstand flooding while still making developments feasible. Raised ground floors will mitigate flood risk while the space below the buildings can be used for parking or temporary work or exhibit space. A ramp can connect pedestrians with the raised ground floor retail, providing visual interest while maintaining the ability of the retail stores to draw in pedestrians. Alternatively, dry flood proofing, or making the building envelope watertight, could help keep retail or other active uses at street level, although this option may be more expensive.[5] In addition, green infrastructure and permeable pavement on the road and sidewalk will allow for better absorption of stormwater and help mitigate flood risks.

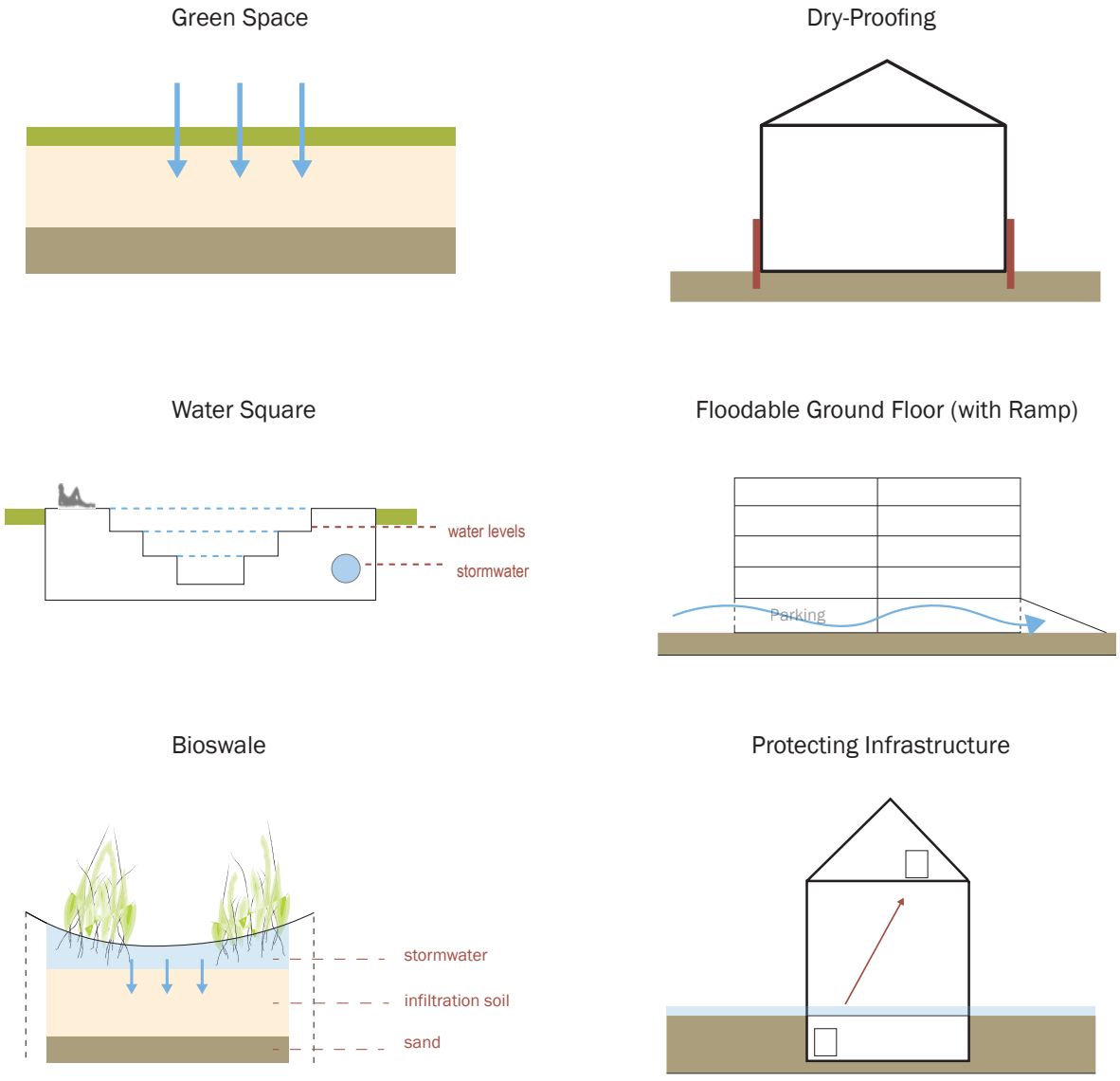


Figure 4.23: Menu of resiliency techniques – water absorption technique and floodable infrastructure.

Floodable Design – Cuisinart Center

The Cuisinart Center for Culinary Excellence at Johnson & Wales University in Providence, Rhode Island provides an example of a building designed with flood risk in mind. Located in a coastal floodplain, the building contains 30 classrooms, 11 specialty labs, and nine kitchens. The first floor of this building is floodable; all of the critical equipment (heating, electrical, etc.) is located on the upper floors.

Figure 4.24: Cuisinart Center for Culinary Excellence, Providence, RI. Image Source: Tsoi/Kobus & Associates, Project Architects

The architects originally planned to have parking on the first floor, but ample parking in the vicinity necessitated changes to the final design. Instead, the first floor houses a lobby and loading dock. The brick and glass walls that encase the lobby are designed to break away in the event of storm surges, preventing any undue stress on the load-bearing columns and walls of the building.[6]

Phasing Approach

Phase I (Next Five Years):

- Streetscape and public realm improvements to River Road
- Designing for flood risk and climate change

Phase II (Five to Ten Years):

- Mixed-use development throughout the Emerald Island
- Additional green spaces to connect with the Emerald Necklace

Phase III (Ten+ Years):

- Convert River Road into a one-way street with parking and cycle tracks

BOYLSTON TERRACE

Boylston Terrace focuses on the midpoint of the Boylston Street study area. It will build on the momentum produced by the new Homewood Suites Hotel development by improving pedestrian connections and amenities, transforming underutilized parcels into local destinations, and creating welcoming spaces for community use.

This catalyst site includes:

1. Lighting, paving, and landscaping improvements to Walnut Path;
2. A relocated crosswalk to seamlessly connect Walnut Path to Davis Path;
3. A mixed-use, mid-rise development with sidewalk improvements on the current Liner Tire/Midas site (120–128 Boylston Street);
4. Maximum utilization of the Old Lincoln School for swing space, public programs, or adaptive reuse.

Linter Tire site

Rendering of Homeward Suites sidewalk improvements

Uninviting storefronts

Boylston Street playground

Figure 4.25: Existing character of Boylston Terrace.

Why Boylston Terrace?

The vision for this node doesn't begin from scratch: Boylston Terrace improvements build upon a number of existing opportunities along the Boylston Street corridor. The node includes some of the most densely developed parcels in the corridor (two multifamily housing buildings and the Homewood Suites Hotel) and sits near a number of the corridor's most trafficked amenities (East Coast Divers, La Morra, Boylston Street Playground, and several fitness and dance studios). While a smooth transition to residential neighborhoods should be guaranteed through sensitive building designs and site plans, the elevation change between Walnut Street and Boylston Street offers the opportunity for more height, density, and variety of uses than can be achieved on other parcels in the study area.

Figure 4.26: Boylston Street playground is an existing community amenity at Boylston Terrace.

Boylston Terrace will address the community's general dissatisfaction with the study area. Comments collected during the public meetings include:

- Overabundance of auto-oriented businesses;
- Jaywalking is common;
- The Old Lincoln School is an underused amenity;
- Development could fill in the empty parcels and surface parking lots.

By targeting investments and improvements to Boylston Terrace, the Town will improve the user experience both across and along Boylston Street. Through public space improvements, community programming, and desirable retail, commercial, and residential uses, Boylston Terrace will create a coherent and connected experience on Boylston Street.

Recommendations for Boylston Terrace

Lighting, Paving, and Landscaping Improvements to Walnut Path

Walnut Path connects the Pill Hill and The Point neighborhoods to amenities on and across Boylston Street. It is currently a narrow, poorly paved path with no lighting or landscaping. Residents use the path because it is shorter than alternate routes, but residents report using it sparingly and avoiding it at night because the path feels unsafe.

Figure 4.27: Walnut Path (Existing). November 2015.

Figure 4.28: Walnut Path (Potential Improvements). Example: Green Alley rendering in Los Angeles includes greenery and design elements for a more welcoming path. Image Source: Trust for Public Land, Los Angeles, CA

Improvements to Walnut Path will include the installation of 24-hour lighting. New greenery or murals will transform the chain link fences and cinder block walls into vibrant, welcoming placemaking elements. The path's surface will be repaved with brick pavers to increase permeability and enhance connectivity with the raised crosswalk on Walnut Street. Signage will be replaced to match Brookline's town-wide signage program and inform users of amenities that can be accessed by using the path.

These quick, near-term improvements will improve public safety and usher pedestrians onto a section of Boylston Street that they might otherwise avoid. Rather than a dark, seldom-used path, Walnut Path will be a special amenity for Pill Hill and The Point residents, Old Lincoln School students, and other visitors to the area.

Community Programming at the Old Lincoln School

The Old Lincoln School is a historic neighborhood asset that is currently underutilized and suffering from negative neighborhood perceptions due to its age. Temporary uses and community programming can reframe the space as a canvas for arts, culture, entrepreneurship, and community building.

With no significant changes to the building's infrastructure or status as overflow space for public services, the Old Lincoln School can be used for:

- A seasonal indoor arts, crafts, and food market;
- A space for outdoor movie screenings;
- A space for outdoor fitness classes;
- Art and theater performances, such as America Repertory Theater's use of the space for "Sleep No More";
- A co-working space for remote workers;
- A craft or maker space for after-school programs or small business owners.

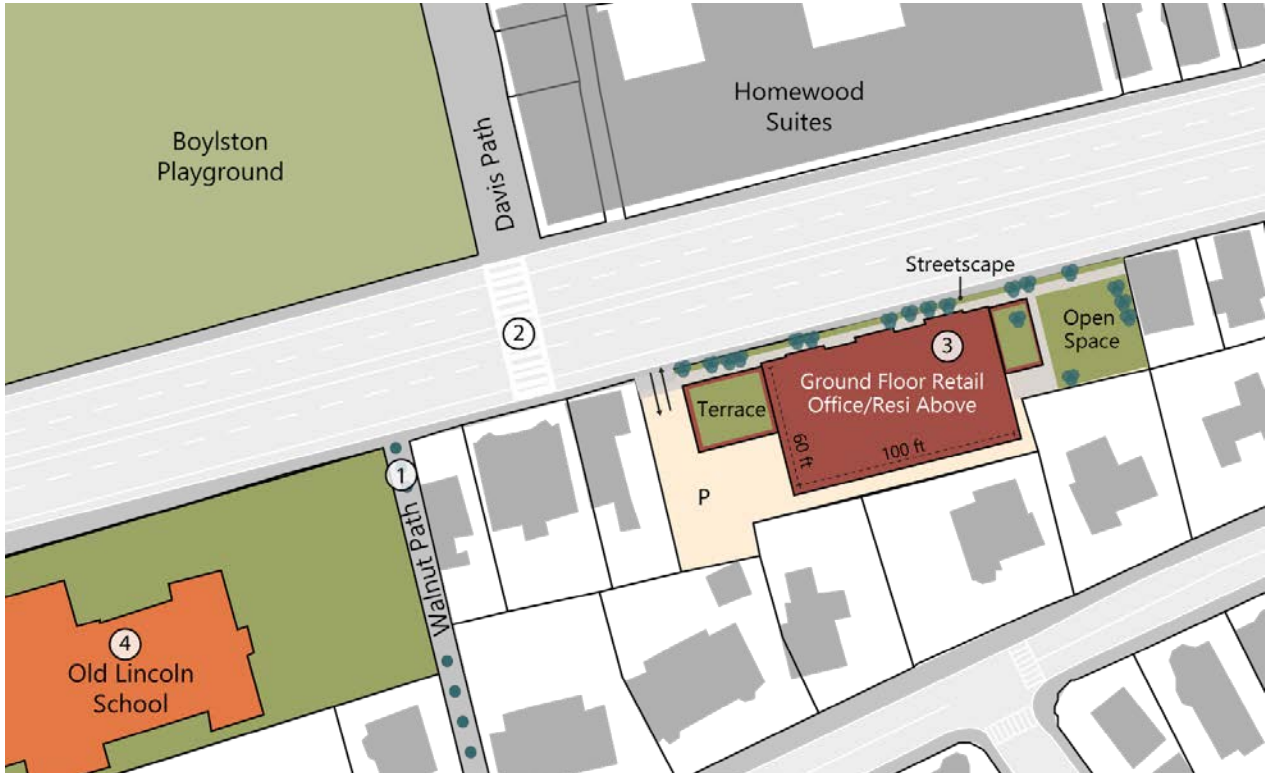


Figure 4.29: Potential Concept Plan for Boylston Terrace.

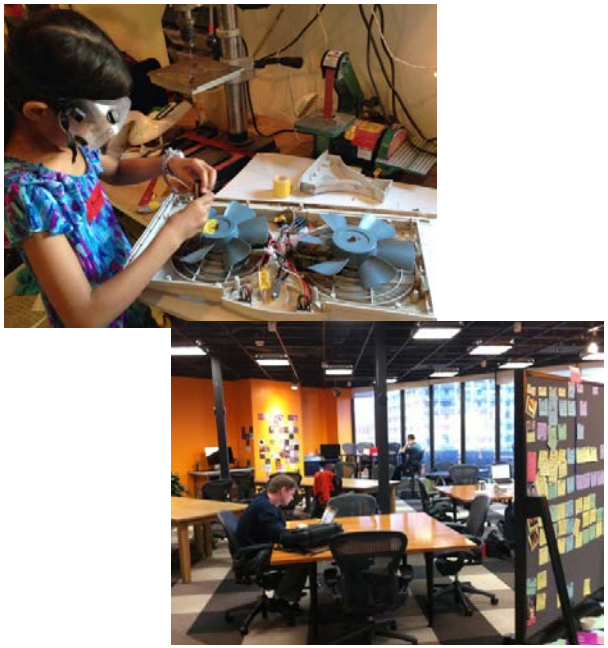


Figure 4.30: Potential Programming for the Old Lincoln School. Images Sources: Parts and Crafts, Somerville, MA, and Cambridge Innovation Center, Cambridge, MA.

Relocate the Existing Crosswalk to Connect Walnut Path and Davis Path

Currently, the only crosswalk between Cypress Street and Washington Street — a half-mile stretch — falls just west of the Old Lincoln School. Pedestrians who emerge from Walnut Path must walk 225 feet to their left if they wish to cross Boylston Street safely and legally. If their destination is Davis Path, they must walk back 330 feet to their right to access the path from the crosswalk. As a result, many users choose to jaywalk between the two paths. As Homewood Suites Hotel fills with guests and the Old Lincoln School continues to be used as school swing space and also accommodates other active temporary uses, this problem will only worsen.

A relocated crosswalk, approximately 230 feet from its current position, will connect Walnut Path to Davis Path and nearly eliminate the motivation to jaywalk. However, users who wish to access the Old Lincoln School from other sites on Boylston Street, such as the Cameron Street neighborhood, may be tempted to jaywalk. To address this concern, it may be necessary to install a second crosswalk at the intersection of Boylston Street with Cameron Street or Smythe Street.

Mixed-use, Mid-rise Development on 120–128 Boylston Street

The two parcels of land across from the new Homewood Suites Hotel are currently home to Liner Tire and Midas Auto Services, two auto-oriented uses that are replicated elsewhere on Boylston Street. The sites' uses do not cater to the future user needs of Boylston Terrace. Guests at Homewood Suites Hotel will need a place to shop for food or enjoy a nice dinner. Pedestrians heading to a craft market at the Old Lincoln School will prefer not to pass a parking lot full of cars awaiting service. Boylston

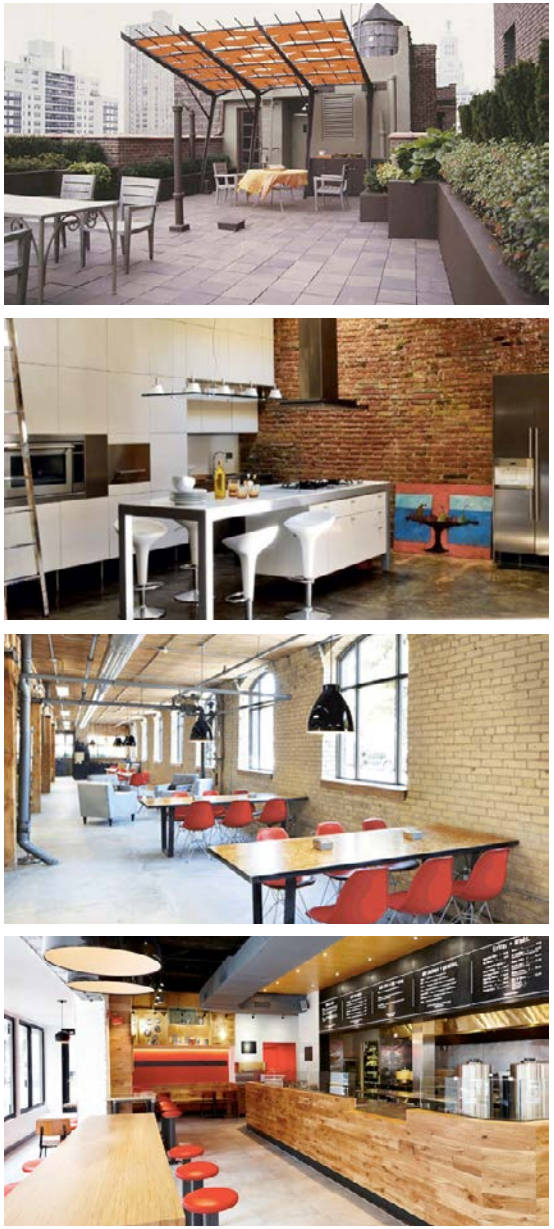


Figure 4.31: Potential uses for 120–128 Boylston Street (from bottom to top), fast-casual dining, boutique office space, modern residential, rooftop terrace.
Image Sources: Inday, Emerge 212, modernmagazine.com, NYC212

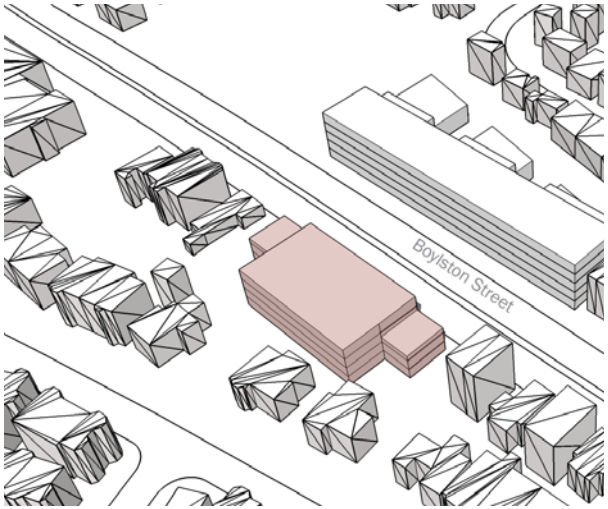


Figure 4.32: Potential proposed massing for Boylston Terrace (FAR shown: 2.0).

Figure 4.33: Potential massing for 120–128 Boylston Street (FAR shown: 2.0).

Terrace will be made more desirable and walkable by capitalizing on young professionals' demands for high-end studio apartments and modern workspaces.

Renovations at 120–128 Boylston Street will bring a modern, mid-rise, mixed-use development that complements existing and future development along Boylston Street. The ground floor will feature retail that is attractive to neighbors, hotel guests, office workers, and visitors. Grocery store is a good example that also takes advantage of the size of the site, given that many parcels along Boylston Street are small and narrow. Upper floors will include high-end office spaces or residential units, tapping into spillover needs from the Longwood Medical Area. A green rooftop terrace will create an amenity for the building's users while creating a pleasant view for neighbors on Walnut Street, whose elevation allows them to look down to, rather than at, the rear of the building.

Both parcel owners (Liner Tire Waban and ART-LEE LLC) purchased the parcels in the 1990s; while the land has appreciated nearly 10% per year since 2002, the buildings on the site have seen little to no improvements and are depreciating in value. It is likely that the owners will be willing to sell the land or agree to be partners in the parcels' development. Development incentives for re-parcelization will create a single parcel with ample room for a shallow but wide building four to five stories

high. Public benefits will include a three to four foot setback to allow for sidewalk widening and street trees, a public plaza with benches and landscaping, and underground parking for both private and public use.

Adaptive Reuse of the Old Lincoln School

In the long-term, Boylston Street will be a bustling commercial center with a diversity of uses and a high level of foot traffic. If the Old Lincoln School is no longer needed for overflow space, adaptive reuse can transform the building into a fully restored, desirable community asset.

Examples of adaptive reuse of historic school buildings include:

- **Senior Housing:** Classrooms become affordable, ADA-accessible units and large spaces, like cafeterias and gyms, become much-needed common spaces for Brookline's aging population;
- **Arts & Cultural Center:** Spaces for art classes, performances, and public events that cater to children, families, and adults;
- **Brewery & Movie Theater:** A popular gathering place that adds life to Boylston Street on nights and weekends;
- **Hotel:** A unique, high-end hotel to reinforce Boylston Street's emergence as Brookline's hotel district.

Phasing Approach

Phase I (Next Five Years):

- Lighting, paving, and landscaping improvements to Walnut Path
- Continued use as a Town swing space for school projects and other public building renovations
- Community programming at the Old Lincoln School
- Relocate the existing crosswalk to connect Davis Path and Walnut Path

Phase II (Five to Ten Years):

- Mixed-use, mid-rise development on 120–128 Boylston Street

Phase III (Ten+ Years):

- Adaptive reuse of the Old Lincoln School

Figure 4.34: Existing Old Lincoln School and example of adaptive reuse (clockwise from top-left): Old Lincoln School; Affordable Senior Housing in Albany, NY; Hotel, Brewery & Movie Theater in Portland, OR; Arts and Culture Center in Niagara Falls, NY.

Transportation: A Complete Boylston Street

Boylston Street will be a multi-modal corridor, with safe, convenient, and enjoyable facilities for people walking, biking, and driving. A complete Boylston Street will continue to serve as a critical east/west connection in the Boston metro area's transportation network but will do so for pedestrians and cyclists in addition to drivers. The corridor's human-scaled public realm will reconnect the surrounding residential neighborhoods instead of dividing them with highway lanes and congestion.

By 2035, the Boylston Street streetscape will include:

1. Four lanes of automobile traffic;
2. Protected bike lanes;
3. Wide sidewalks with street trees and street furniture;
4. On-street, parallel parking;
5. Multi-modal intersections.

Figure 4.35: Heavy rush hour traffic on Route 9 East.

Why Complete Streets?

The automobile has long defined the character of Boylston Street in Brookline. The street itself is better known by its designation as a state highway, Route 9 East. From tire stores and gas stations to car dealerships, many of the businesses in the corridor are oriented around the automobile.

Until it was torn down in fall 2015, the derelict pedestrian overpass at Washington Street stood as an unsafe, unusable monument to the pedestrian's place in the corridor — an afterthought to vehicle dominance of the corridor. Even with the MBTA Green Line branches at capacity during rush hour and sidewalks increasingly crowded with commuters and students, the built environment of Boylston Street is currently failing to support the changing ways that people are traveling in Brookline.

During interviews with community stakeholders and in public comments at the October 28 public meeting, the safety and level of comfort for users of all transportation modes on Boylston Street emerged as a significant concern and explanation for the current character of the district. The safety of pedestrians crossing Boylston Street was of particular concern, with two T stops, Brookline High School, and the Old Lincoln School all drawing heavy pedestrian traffic. Community members stressed the importance of improving signal timing at intersections, widening and improving sidewalks, and calming traffic as critical steps to making the Boylston Street corridor a more vibrant district.

In order for Boylston Street to become an active, cohesive, and connected community, the street itself must become a Complete Street, providing safe, comfortable, and convenient transportation for everyone, not just for people driving cars. A number of recent policy developments at the national, state, and town levels (described in Part 5 of this report) make the idea of a Complete Boylston Street not a far-fetched, idealistic vision, but something the community can start working to implement immediately.

Recommendations for a Complete Boylston Street

While incomplete streets are clearly recognizable by their car-centric design, Complete Streets range in design depending on the physical conditions and community context in which they are built. A Complete Street in a city's downtown will look different than a Complete Street in a rural town. Instead of a one size fits all design, Complete Streets can be thought of as a menu of design options that can be combined in different ways to meet the

"Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users. People of all ages and abilities are able to safely move along and across streets in a community, regardless of how they are traveling. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations."

—National Complete Streets Coalition, Smart Growth America

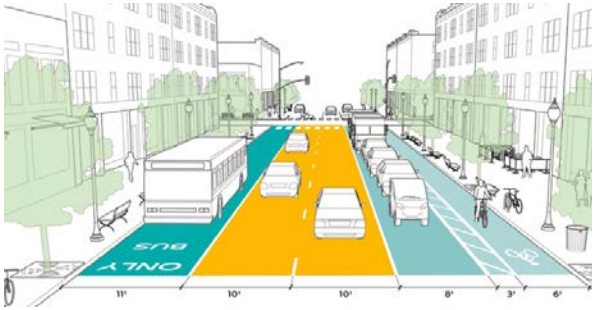
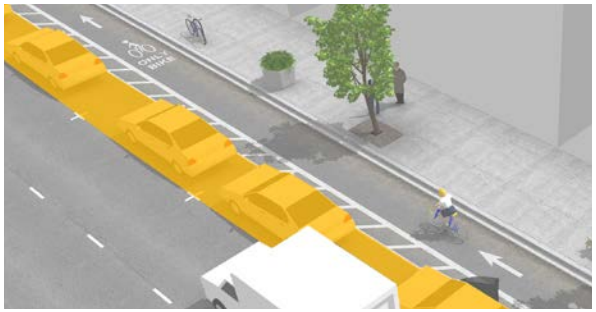
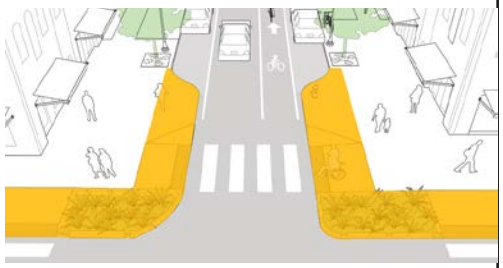
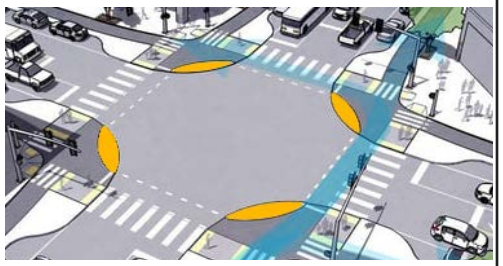
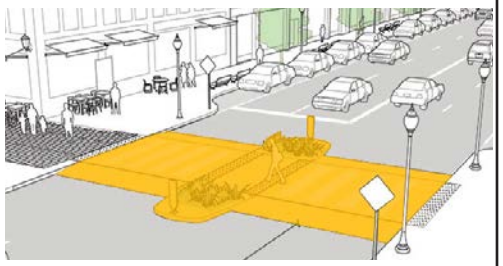
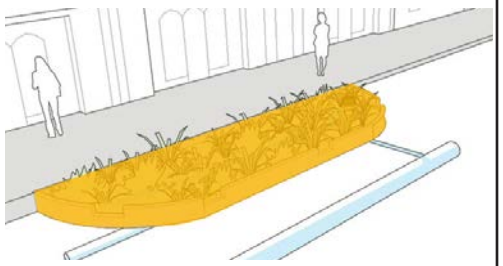
Roadway Cross Section Elements	
	**Traffic Lanes** — Number of lanes is dependent on current and expected traffic flow, but width of lanes must be considered within the context of the overall streetscape. Ten feet lane widths are considered appropriate for urban streets, providing adequate safety for cars and trucks while discouraging speeding.
	**Protected Bike Lanes** — Allow for safe biking on a street by riders of all ages and abilities. Lane protection can range from plastic bollards to on-street parking to grade separation (building the bike lane level with the sidewalk).
	**On-street Parallel Parking** — Provides vehicle access to businesses on a street. Parking can also serve as protection between a bike lane and traffic lanes, as well as calm traffic in adjacent traffic lanes. Seven to nine feet in width allows for easy to navigate on-street parking.
	**Sidewalk Street Tree/Furniture Zone** — Provides clear separation between the roadway and the rest of the sidewalk, as well as visual cue to calm traffic. Street furniture can encourage pedestrians to linger at various points in the corridor. Typically five to seven feet in width allows for healthy street trees and space for street furniture such as benches.

Table 4.1: Complete Streets design elements. Image Sources: NACTO Urban Street Design Guide and Urban Bikeway Design Guide.

transportation needs, context, and constraints of a particular street.[7] Complete Streets design on Boylston Street faces the constraint of a relatively narrow space to work within. Currently along the corridor, the right-of-way (the distance across the roadway from property line to property line) is approximately 80 feet in width, so there will need to be trade-offs in how street design elements are combined to fit within that width. In addition, any Complete Streets design for Boylston Street must integrate with the Gateway East design east of Washington Street. This section describes a number of complete streets elements that could be implemented on Boylston Street, and then describes a potential implementation of Complete Streets design for Boylston Street.

Roadway Cross Section Elements	
	**Sidewalk Pedestrian Through Zone** — The main section of the sidewalk, allowing for pedestrians moving through an area, rather than lingering. Typically a minimum of five to seven feet in width allows for comfortable pedestrian movement in both directions.
	**Planted Median** — Provides visual cue to calm traffic as well as green infrastructure to capture, treat, and infiltrate stormwater runoff.
Intersection Elements	
	**Curb Extension/Bump-out** — Enhances pedestrian safety by shortening the intersection crossing distance and providing a visual cue for drivers to slow down through the intersection. In addition, narrows the turning radius of intersections, which slows vehicle turning movements and increases sightlines between drivers and cyclists or pedestrians.
	**Raised Crosswalk** — Continues the crosswalk through the intersection at the same grade as the sidewalks in order to reduce conflict between cars and pedestrians by slowing the speed of vehicles through the intersection.

Intersection Elements	
	**Bike Lane Islands** — Minimizes conflict between cars, cyclists, and pedestrians with a curb island between the bike lane and traffic lanes at an intersection. This provides clear sightlines between turning vehicles and cyclists proceeding through the intersection and allows for the pedestrian safety benefits of curb-extensions without sacrificing a separated bike lane.
Other Elements	
	**Midblock Crossing (HAWK Beacon)** — Allows for safe pedestrian crossing mid-block when the distance between intersections is great. The pedestrian-responsive HAWK (High-Intensity Activated Crosswalk) beacon stops traffic to allow pedestrians to cross safely with minimum interruption to traffic flow.
	**Bioswale** — Provides a traffic calming curb bump-out as well as green infrastructure to capture, treat, and infiltrate stormwater run-off.

Proposed Complete Boylston Street Design

The design on the following pages shows a potential iteration of a Complete Streets design for Boylston Street, incorporating public comments and recommendations for the corridor. This Complete Streets design is broken into sections of intersections, crossings and road segments.

At the Cypress Street intersection, curb-extensions and painted zebra striping will shorten the crosswalks and increase crosswalk visibility to drivers. Curb islands will protect the bike lanes through the intersections and tighten turning radii to slow car speeds and increase visibility.

The roadway segment from Cypress Street to the Davis Path and Walnut Path features ten-foot sidewalks on both sides, with street trees and furniture interspersed along the corridor. There are five-foot-wide bike lanes in each direction, buffered from traffic by a two-foot median. There are two ten-foot traffic lanes in each direction, preserving existing traffic capacity, but slowing the designed speed of the roadway. There is one seven-foot lane of on-street parking in the westbound direction, providing additional separation between direction's bike lane and the traffic lanes.

At the Davis Path and Walnut Path, a new mid-block pedestrian crossing replaces the current crossing in front of the Old Lincoln School. Curb-extensions and a center island shorten the pedestrian crossing length and calm traffic. Bold zebra striping of the crosswalk and pedestrian crossing signs increase crosswalk visibility to drivers, while a HAWK signal stops traffic for pedestrians to cross, without requiring a full traffic light.

The roadway segment from the Davis Path and Walnut Path to Washington Street also features nine-foot sidewalks on both sides of the street with street trees and furniture interspersed. There are also two five-foot protected bike lanes, with a one-foot median separating them from traffic. Two ten-foot lanes of traffic in each direction are separated by a five-foot median planted with trees, in order to provide a traffic calming visual cue as well as create additional green space. There is a seven-foot parking lane in the westbound direction.

At the Washington Street intersection, this design integrates with the Gateway East design currently under development. Curb-extensions and center islands shorten pedestrian crossings and the protected bike lanes west of Washington connect with those proposed under Gateway East.

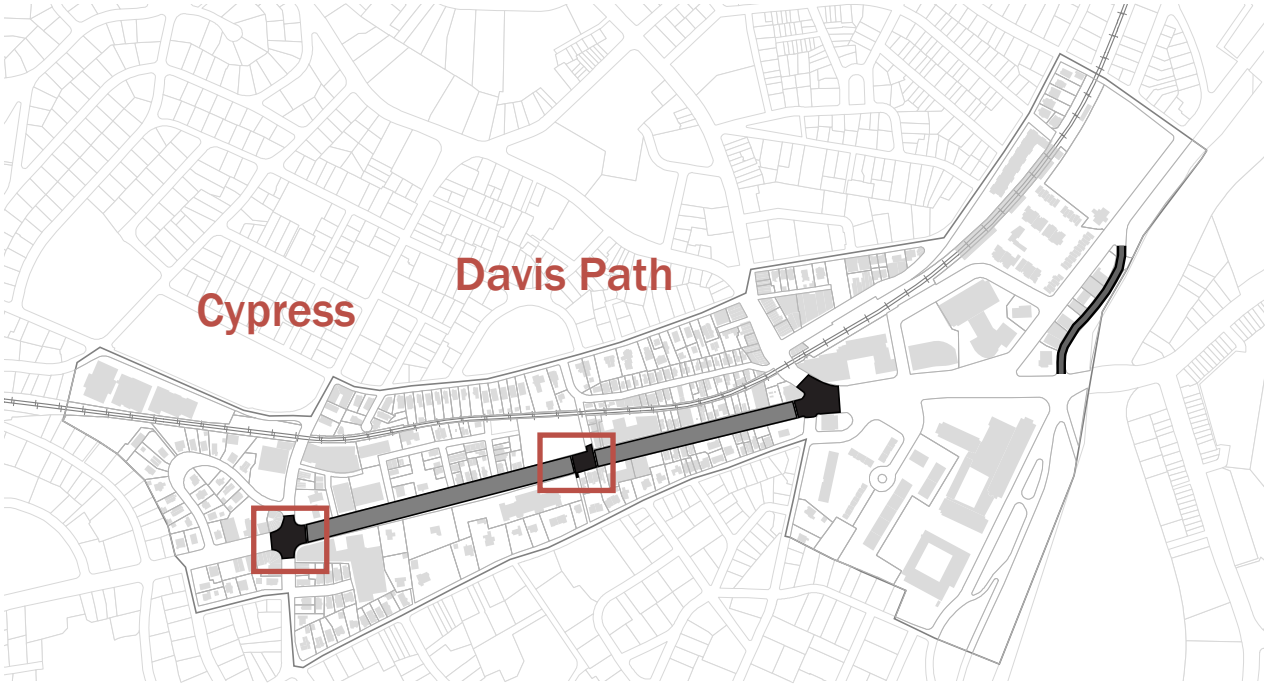
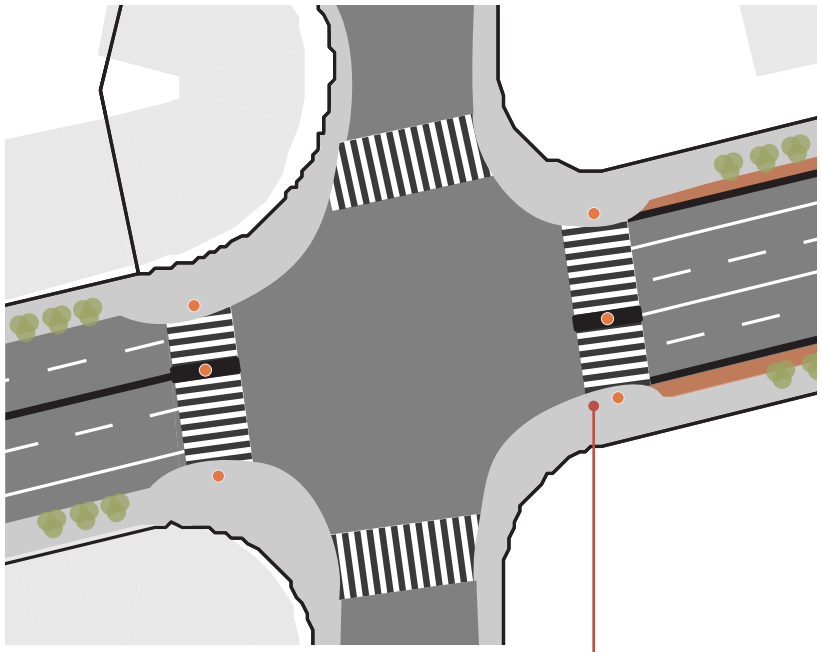


Figure 4.36: Location of potential Complete Streets intersection improvements.

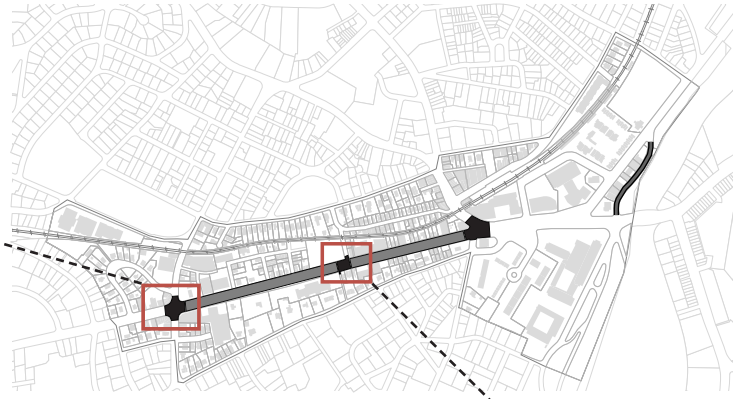
A Complete Boylston Street will open up destinations along the corridor to people using all modes of transportation, not just cars. It will create space for people to linger, rather than just pass through, and will make people feel safe as they travel along the corridor. A Complete Boylston Street will create the conditions necessary for the catalyst sites to thrive and for their momentum to be carried forward throughout the corridor.

This proposed configuration is just one of the many ways that Complete Streets design might be implemented on Boylston Street. As described in Part 5 of this report, it will require collaboration between community members, town transportation officials, and MassDOT to determine the ideal design to meet the future transportation needs of Boylston Street.

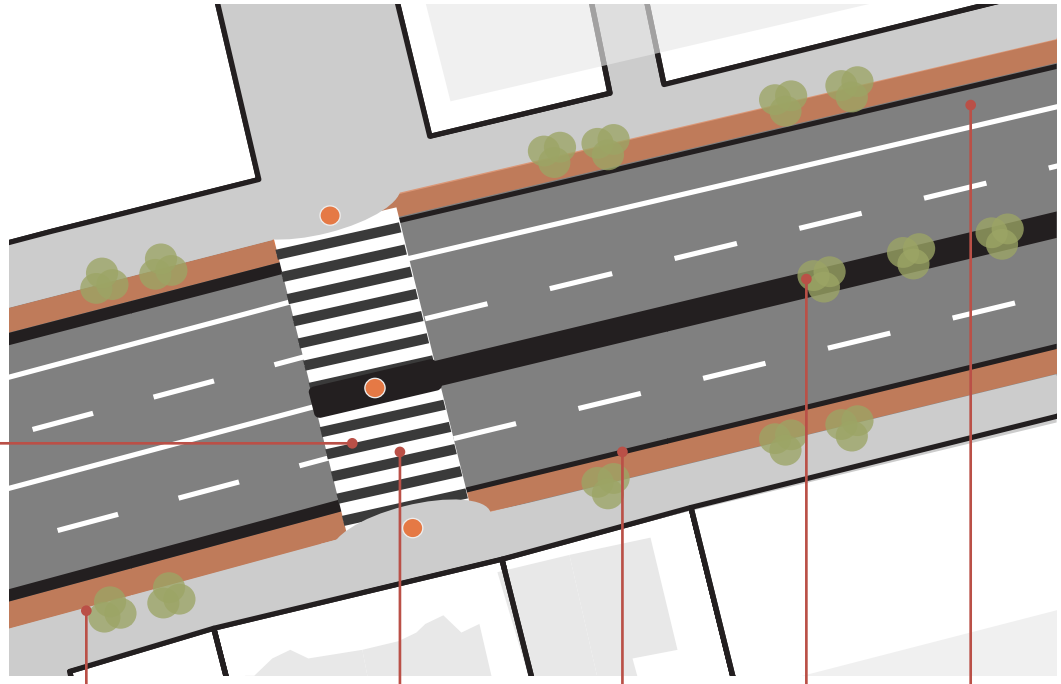
Proposed Complete Streets Changes – Intersection Improvements



Cypress



Davis Path



Zebra crossing with signage, island, and curb extensions

Widened sidewalks with street trees

HAWK crossing

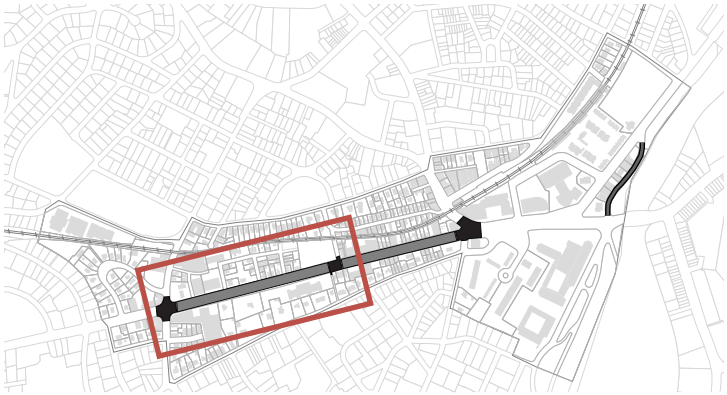
Protected bike lane

Tree-lined median

Parking

Figure 4.37: Potential intersection improvements on Boylston Street at Cypress Street (top) and Davis Path (right).

Proposed Complete Streets Changes – Davis Path to Cypress Street



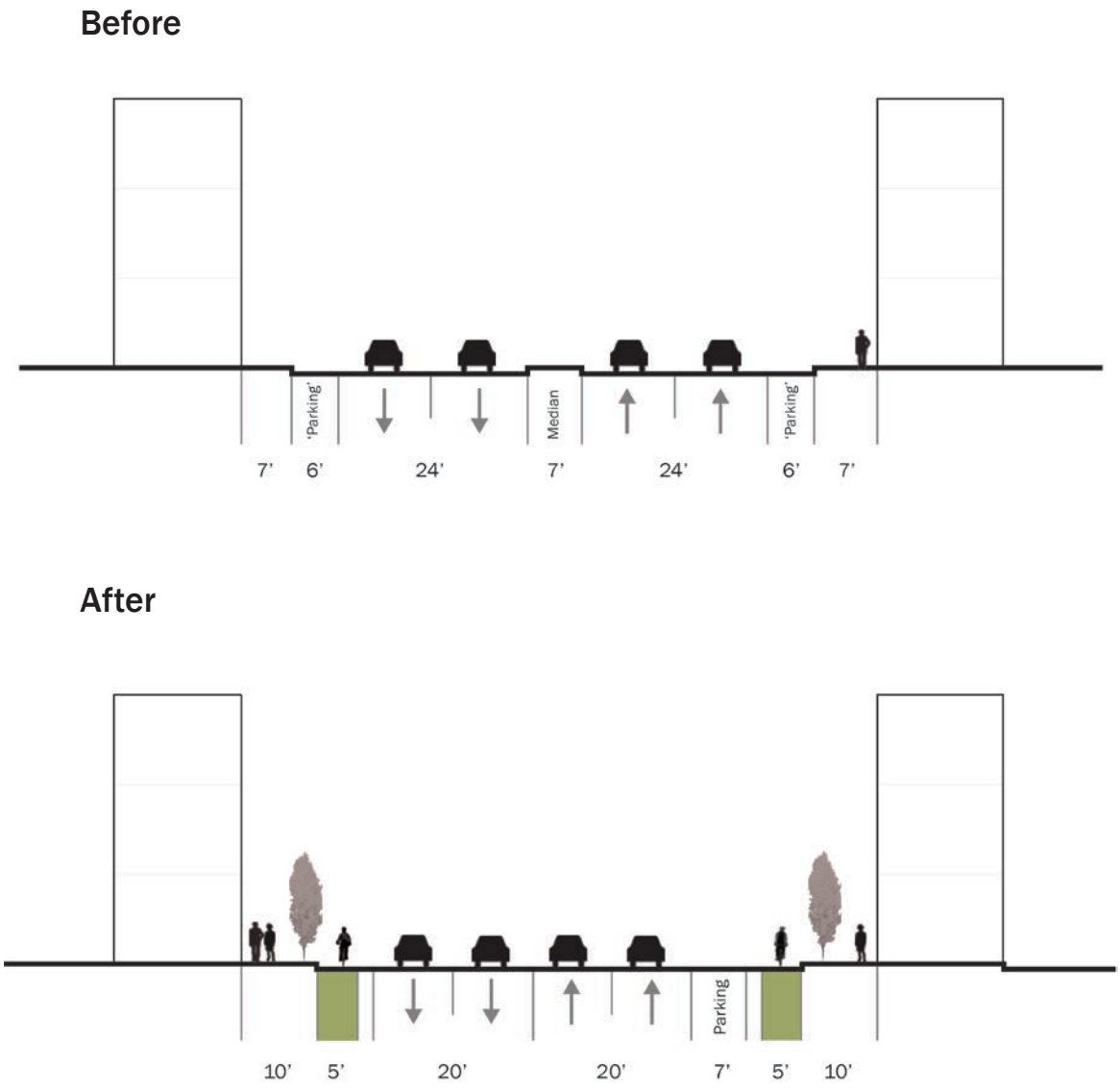
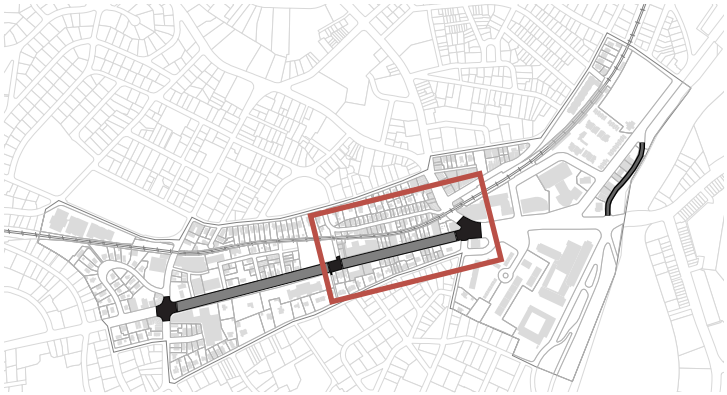


Figure 4.38: Section of potential Complete Streets lane configurations on Boylston Street from Cypress Street to Davis Path.

Proposed Complete Streets Changes – Davis Path to Washington Street



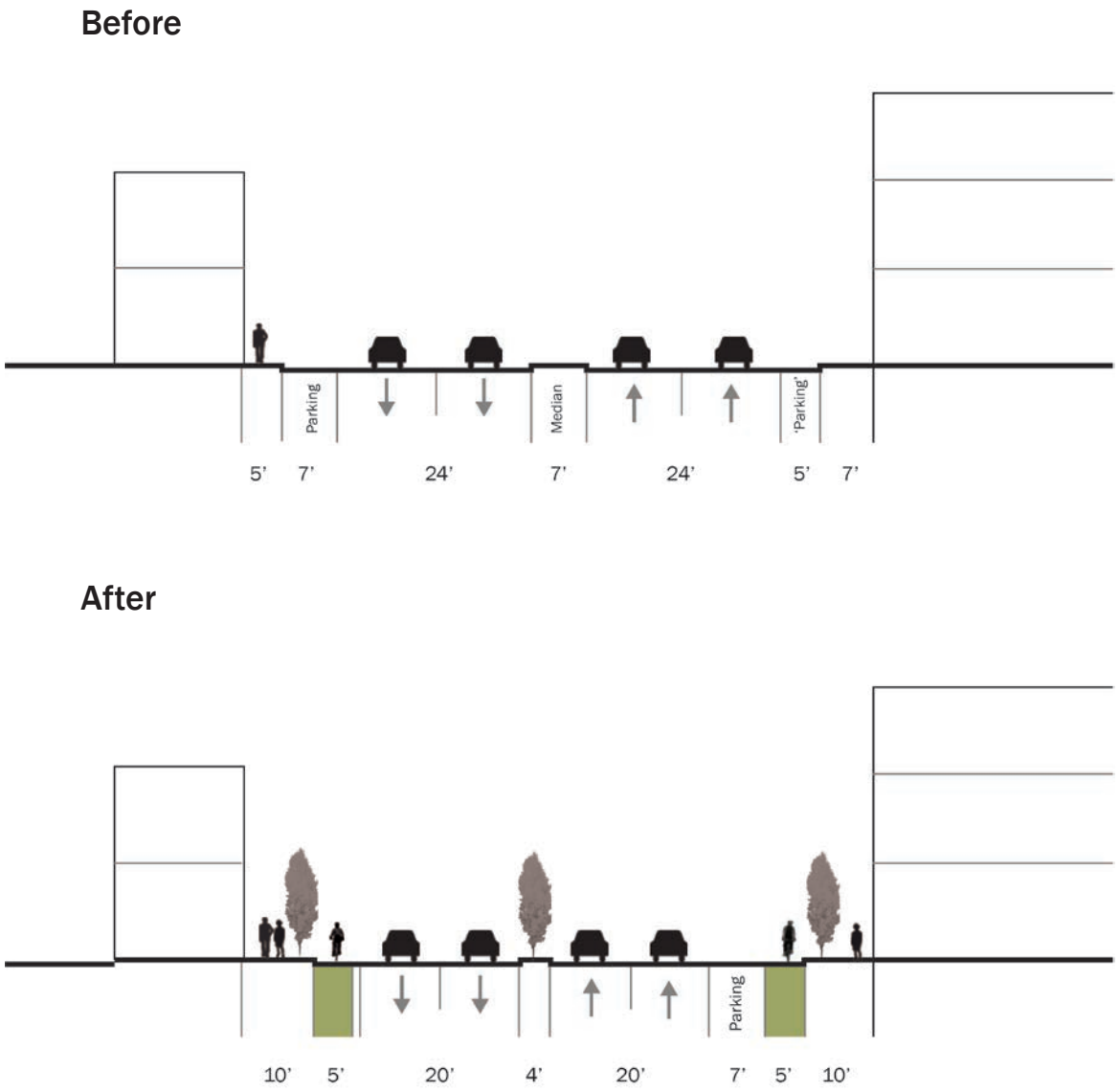
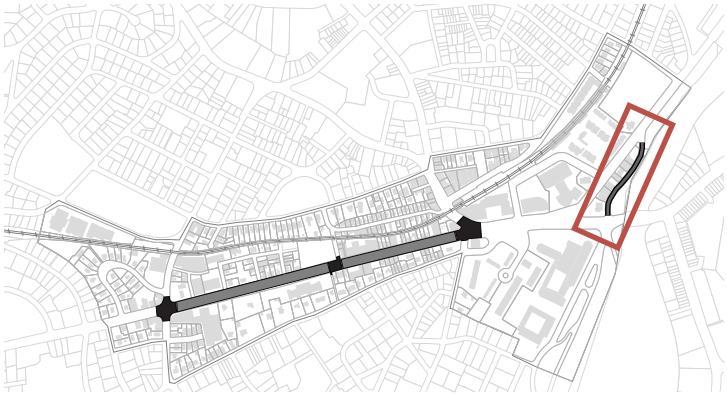


Figure 4.39: Section of potential Complete Streets lane configurations on Boylston Street from Davis Path to Washington Street.

Proposed Complete Streets Changes – River Road



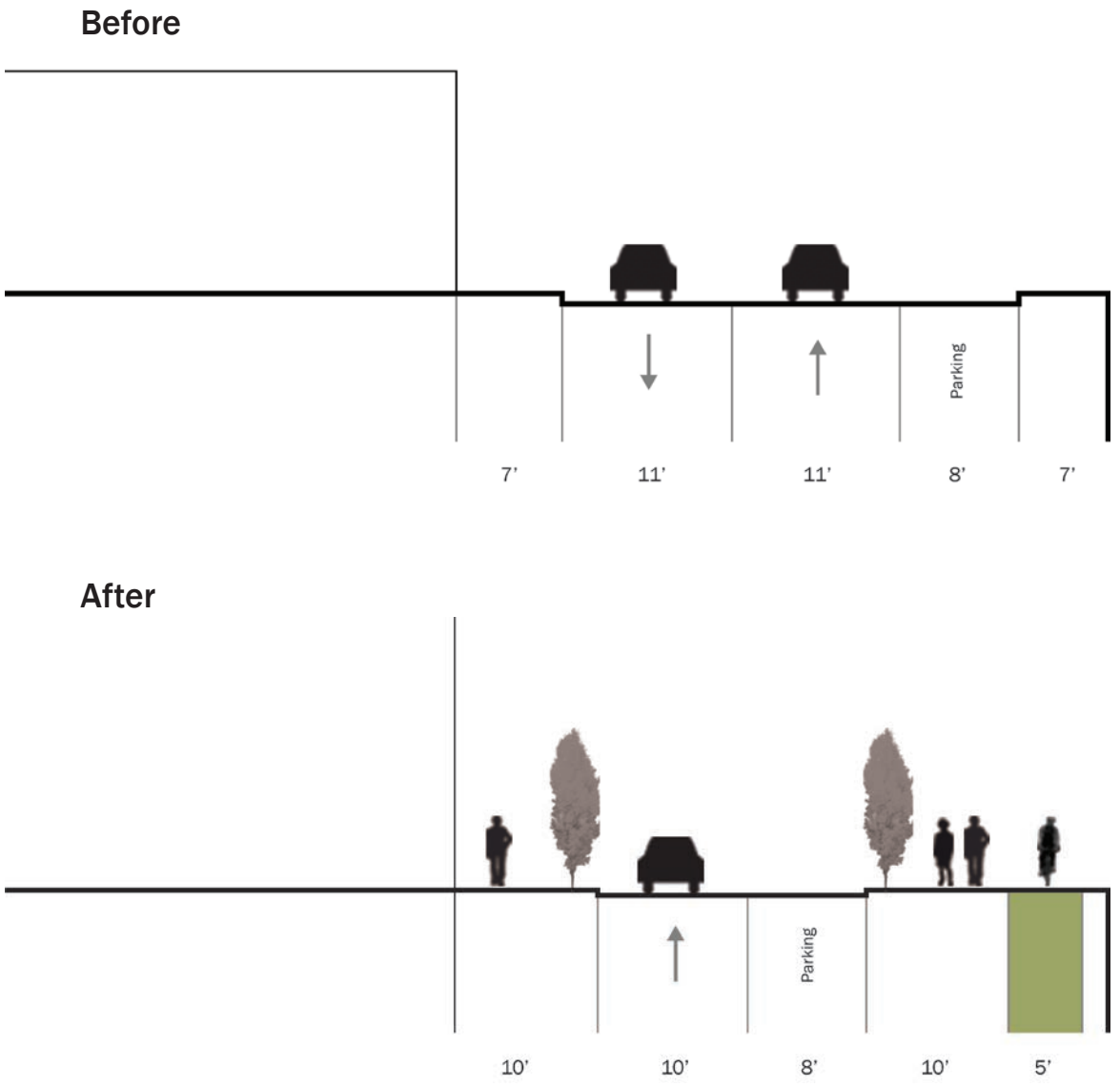


Figure 4.40: Potential complete street intersection improvements for River Road.

Phasing Approach

Complete Streets design does not have to be implemented all at once in order to achieve significant benefits for those who use Boylston Street. A phased approach will ensure that critical modifications for pedestrian safety take place in the near future, while the full design and funding to overhaul the entire corridor will come in the later years.

Phase I (Next Five Years):

- Update signal timing at Cypress Street and Washington Street to facilitate safe and comfortable pedestrian crossing of Boylston Street.
- Implement curb-extensions as temporary, "tactical urbanism" interventions as a low-cost pilot project for further Complete Streets investment in the future.

Phase II (Five to Ten Years):

- Replace existing pedestrian crossing at the Old Lincoln School with new, improved pedestrian crossing at the Davis and Walnut Paths.
- Make successful short-term changes permanent depending on feasibility and likelihood of full corridor Complete Streets improvements.

Phase III (Ten+ Years):

- Design and construction of full Complete Streets overhaul of Boylston Street corridor.

Section Endnotes

[1] "Permeability" refers to a pedestrian's ability to pass through a space with minimal obstructions.

[2] Isaacson, Betsy. "Teacher's Village Developers Have Big Dreams for Downtown Newark." *Huffington Post*, 9/25/15.

[3] Low Income Investment Fund. Report to the Community, December 2006, Issue V.

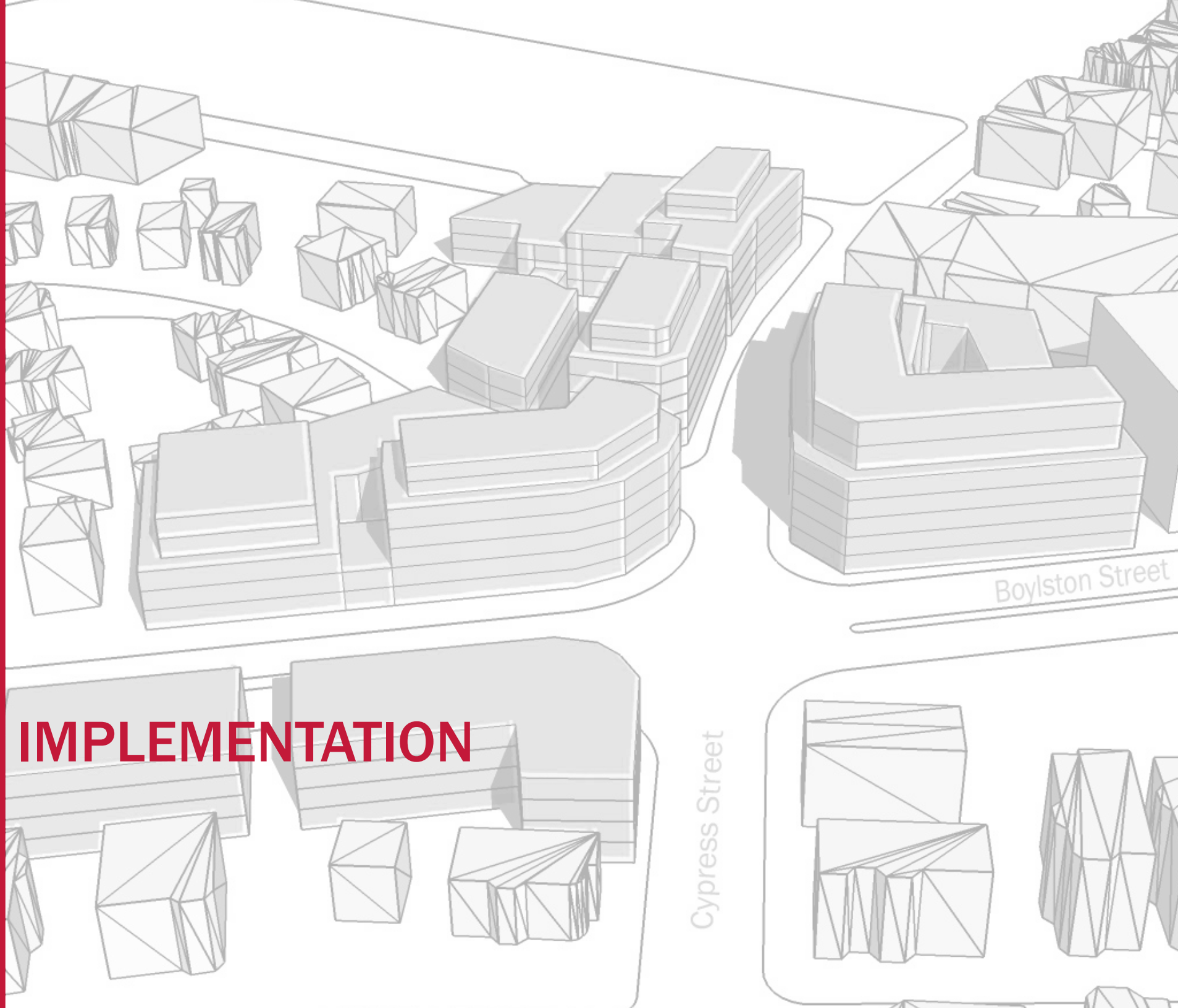
[4] Mallach, Adam. "Better Schools, Better Neighborhoods: New Ways to Create the Schools New Jersey Needs," February 2009. http://www.hcdnnj.org/assets/documents/Better%20Schools,%20Better%20Neighborhoods.pdf.

[5] NYC Planning. "Coastal Climate Resilience: Designing for Flood Risk," June 2013. http://www.nyc.gov/html/dcp/pdf/sustainable_communities/designing_flood_risk.pdf.

[6] Aiken, Chris, Nina Chase, Jason Hellendrung, and Julie Wormser. "Case Studies." In *Designing With Water: Creative Solutions from Around the Globe*, 19. Boston, Massachusetts: Sasaki Associates, 2013.

[7] National Association of City Transportation Officials. *Urban Street Design Guide*. New York City, New York: Island Press, 2013.

5 IMPLEMENTATION



5 IMPLEMENTATION

The recommendations presented in Part 4 of this report focus on development at three key catalyst sites in addition to a corridor-wide Complete Streets strategy. These recommendations will lead to a Boylston Street that is a lively and cohesive destination, connects the surrounding neighborhoods with multi-modal transportation, and has innovative commercial uses and inviting public spaces. Part 5 presents strategies that will help the Town implement these recommendations, including a proposed amendment to its Zoning Bylaw, a road map for creating a Complete Boylston Street, and a description of how Town committees and residents can carry this vision forward.

Figure 5.1: Proposed zoning overlay districts.

Zoning

Boylston Street's current zoning promotes development that is contrary to Brookline's evolving vision for the corridor while prohibiting much of what the Town seeks. The resulting restrictions can leave residents displeased with development proposals and discourage developers from working in the town. Recent success with the Davis Path Special District (see "Success of Davis Path Special District" on page 70) suggests that specific, goal-oriented zoning amendments can bring the changes that residents wish to see.

To achieve the vision of a vibrant, cohesive Boylston Street and an environmentally friendly, transit-oriented Emerald Island, the Town should create two overlay districts that establish preferred forms and functions for new development. The overlay districts should be modeled after the successful Davis Path Special District and involve the community in a proactive, design-based engagement process to codify a vision for the study area through form-based zoning. Ideally, the resulting overlay districts will provide clear, implementable design and use guidelines with built-in incentives to attract the types of development the Town deems appropriate.

Success of Davis Path Special District

An overlay district (also known as a special district) is a zone that supplements existing zoning bylaws with place-specific zoning provisions. An overlay district allows towns to work with stakeholders and communities to create specific expectations for new development up front instead of being reactionary to the ideas of developers. Developers have the option to adhere to the existing bylaw or add the overlay district specifications. Areas with an overlay district are typically more attractive to a developer because the overlay clearly articulates desired outcomes. The clear requirements provided in overlay district regulations reduce the risk of development proposals being opposed and overturned by a community, thus lessening risk and permitting time for developers.

An example of a successful overlay district can be found right within the study area: the Davis Path Special District at 111 Boylston Street. In 2011, the Town established the Davis Path Special District Zoning Study Committee to review and analyze current conditions, zoning and parking requirements, design guidelines, and shadow studies. This analysis was used to create recommendations for a zoning overlay district that would permit appropriate development while mitigating impacts on adjacent neighborhoods and historic districts. The overlay resulted in unique setbacks, height requirements, FAR specifications, reduced parking requirements based on use, and demands for public benefits. Developers of 111 Boylston Street were required to provide trees and devote no less than one percent of hard construction costs toward improvements in the adjacent area. The concern about height from the adjacent White Place residential neighborhood was addressed by creating an angled setback plane at the rear of the property. This innovative measure allowed greater height without imposing negative sight line impacts on neighbors who had originally wished to downzone the parcel from an FAR of 2.0 to 1.0.

The result of the Davis Path Special District is a new hotel development that will add street activity to the area, enhance the commercial tax base of the Town, and provide public realm improvements to the adjacent Davis Path and Boylston Street Playground. The overlay district was instrumental in attracting the hotel developer, and can be used as an example for future overlay districts in the area.

Figure 5.2: Section view of Homewood Suites Hotel in relation to the surrounding environment.
Image Source: Group One Partners. Homewood Suites Proposal Presentation to Brookline Planning Board, February 2014

Form-Based Zoning

Traditional zoning has focused on what a community "doesn't want" by stressing the prohibition of particular uses and the separation of others. The result is that communities successfully avoid unwanted uses but face difficulty attracting uses that they desire and need. The emphasis on separating uses creates places lacking in diversity and interest. For instance, locations that host only business uses have a difficult time supporting restaurants beyond 5 p.m. Residential areas that lack retail, commercial, and dining options often lack a vibrant public realm and reinforce auto-dependency.

Form-based zoning bylaws are a relatively recent way to regulate the physical environment. They are based in knowledge acquired over the last 100 years that indicates that mixed-use communities are more interesting places to live, work and play. Form-based zoning regulates the physical form of buildings to realize community goals for new development. Communities that have sought to create vibrant commercial corridors have found that conventional methods of zoning, based on the notion of segregated land uses, is an inadequate tool to achieve physical characteristics that contribute to a sense of place. As a proactive land planning tool, form-based zoning can help Brookline residents define and require the kind of environment they wish to see in the Boylston Street corridor. To create form-based zoning bylaws, the Town of Brookline must be proactive and undergo a public design process to create a clear vision for new development. Once the process is completed, the new bylaws will enable the Town to specify the fundamental character of future development along Boylston Street.

The Specifics of Form-based Zoning

Instead of focusing on regulating land uses, form-based zoning encourages mixed-use development while prioritizing site design and building form. Bylaws focus on the design of streetscapes and the public realm using design charrettes, sketches, and examples that conventional zoning doesn't typically incorporate. A form-based bylaw focuses on how development relates to the context of the surrounding community, particularly the relationships between buildings and the street, pedestrians and vehicles, and public and private spaces. Due to this emphasis on design, form-based bylaws provide greater predictability about the visual aspects of new development and typically foster greater community acceptance of new development.

Some examples of form-based zoning in action are provided below.

Form-Based Overlay in Peoria, IL

In the City of Peoria, Illinois, three areas were designated as form-based zones during a zoning code update. The form-based code identified regulatory obstacles that were preventing redevelopment and pursued a goal of reviving commercial corridors that had lost their role as "vibrant social centers." The photo and rendering below illustrate how form-based zoning can create a more walkable and pleasant relationship between buildings and the public right-of-way. Brookline could adopt a similar strategy to create a more walkable Boylston Street with visual interest and public amenities.

Figure 5.3: Form-Based Zoning in Peoria, IL.

Form-Based Zoning Pros and Cons

+ Creates a friendlier development environment which can attract the projects that Town desires

+ Allows the Town to efficiently regulate the form of buildings

+ Expedites the process through by-right development instead of special permitting

+ Provides an informational basis for negotiating and awarding a development bonus

− Requires significant upfront negotiation to adopt detailed zoning amendments

− Reduces the Town's ability to force individual developers to negotiate (but case-by-case negotiation is not needed as zoning clearly states what Town desires)

Figure 5.4: Pros and cons of form-based zoning.

Form-based zoning bylaws are adopted through an extensive community engagement process whereby community desires are codified through building forms. (See "Form-Based Zoning" on page 71) The following section outlines an initial set of elements and considerations that should be discussed during a process to create the two form-based overlay districts. These elements are: height; FAR; density bonuses; use restrictions; parking; site plan review; and design review.

Varying Height Restrictions Based on the Context

As a guiding principle, new height restrictions should be lowest in the areas abutting residential neighborhoods and gradually rise to a peak at the center of the Cypress Junction and Emerald Island catalyst sites. Due to its lack of abutters, proximity to the T station, and adjacency to the wide Brookline Avenue and the Emerald Necklace, the Emerald Island Overlay District can likely support a higher height limit than the Boylston Street Overlay District.

Increasing Baseline FAR

Floor area ratio (FAR) expresses trade-offs between height, massing, and open space. Strict height restrictions paired with low FAR can result in a street with buildings that do not relate well to one another, much like today's Boylston Street. Form-based zoning bylaws should adopt higher, context-sensitive FARs to attract developments with a concentration of workers, residents, and uses that will enliven the street.

Developers earn revenue on a price-per-square-foot basis; especially on small parcels, higher FARs have been shown to incentivize

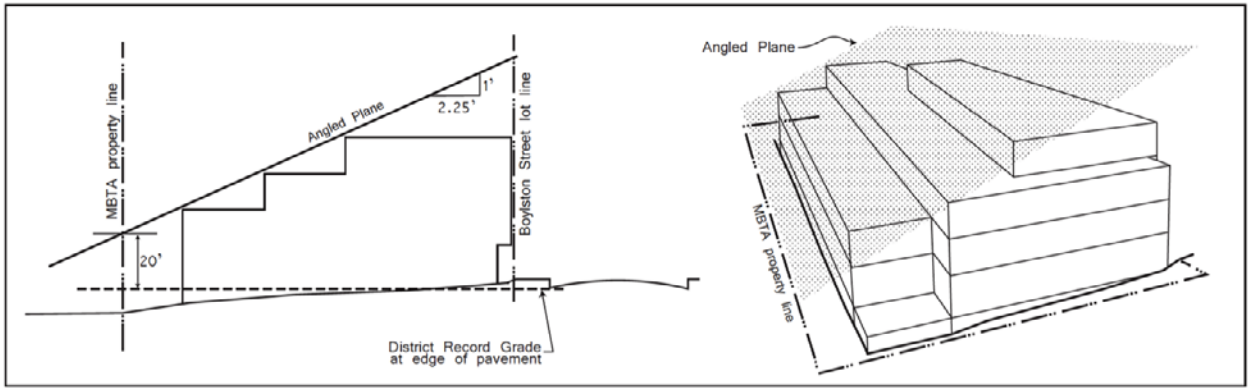


Figure 5.5: Height plane requirement from Davis Path Special District. Image Source: Section 5.06 of the Brookline Zoning Bylaw

Figure 5.6: Zoning height gradient.

development by allowing developers to build additional floor area. The proposed form-based zoning districts should use a standardized FAR of 2.0 with the potential for density bonuses. Most ongoing projects along Boylston Street and in adjoining parts of Boston fall within the 2.0 to 5.0 FAR range, suggesting that an FAR within these dimensions makes development feasible while encouraging developers to meet the requirements for relevant incentives. However, additional market and financial feasibility analysis is needed to determine the appropriate scale of future projects based on the site and uses being considered.

Expressing Priorities through FAR Bonuses

Providing a variety of FAR incentives can encourage developments that are in line with the Town's goals for the corridor. Examples of possible FAR incentives for public benefits include those listed in Table 5.1 of this report and in Section 5.21 of the Brookline Zoning Bylaw. Some FAR incentives will be more relevant to one overlay district than the other, but the community will be able to select and define their priority incentives during future engagement processes.

Commercial Development

The largest recommended FAR incentive aims to promote commercial development. The Commonwealth of Massachusetts' restrictions on property taxes, the Town's higher commercial property tax rate, and concerns about the expense of educating additional students make commercial development preferable from the Town's standpoint. The Town can help bring about commercial development not only by seeking out developers interested in commercial uses, but also with FAR bonuses for deserving commercial projects that offset the market's predisposition toward residential development.

Public Realm

The Town currently grants FAR bonuses in exchange for public benefits through the special permitting process (Section 5.21 of the Zoning Bylaw). Both new overlay districts could allow many of the same FAR bonuses but grant them through a streamlined administrative review process. This could include bonuses for enhancements to open space, inclusion of environmentally friendly building and site planning practices, and provision of public or shared parking. The inclusion of street-level retail and active uses (such as community centers, art galleries, and event spaces) should be added to the list of public benefits qualifying for an FAR bonus in the Boylston Street

Table 5.1: Suggested FAR bonuses (not to cumulatively exceed 5.0 FAR).

Purpose	Criteria	Potential FAR Bonus
Promote commercial development over residential	At least 50% of the floor area must be occupied by commercial use	+0.75
Promote active street life	Incorporates active uses and retail on the ground floor	+0.25
Fund public realm improvements	Makes contribution to the Public Realm Improvement Fund	+10×(Contribution to Public Realm Improvement Fund)/(Construction Budget)
	Makes contribution to the Muddy River Fund	+10×(Contribution to Muddy River Fund)/(Construction Budget)
Promote environmentally sustainable practices	Provision of green infrastructure and/or use of sustainable materials	+0.15
Promote development of small parcels	Combines two or more parcels to create new parcels of more than 20,000 square feet	+1/2× (Area of the combined parcel-Area of the largest original parcel)/20,000 sq ft
Reduce parking pressure on oddly shaped or small parcels	Proposed to sell parking spaces to a parcel within 0.1 miles to offset minimum parking requirements	+3× (Area of parking space)/(Area of parcel)

Overlay District. The Emerald Island Overlay District should offer incentives for buildings that include public pathways and connections to the T station and the Emerald Necklace.

Improvement Funds

To create a system with more transparency and public input while still limiting the use of special permits, the Town should consider establishing a Public Realm Improvement Fund through which developers receive FAR bonuses in exchange for monetary contributions that can be used for street trees, public plazas, and sidewalk improvements throughout the Boylston Street Overlay District. Developments in the Emerald Island Overlay District could make contributions to a designated Muddy River Fund for improvements specifically in that area in exchange for FAR bonuses.

Sustainability

In order to promote environmentally sustainable practices in floodplains, the Emerald Island Overlay District should provide bonuses for the provision of green infrastructure, raised building structures, and the use of sustainable construction materials and methods.

Re-parcelization

As shown in Part 3 of this report, a particularly challenging aspect of promoting development along Boylston Street is the prevalence of small and narrow parcels. The majority of lots in the district are smaller than 8,000 square feet, while some are even smaller than 3,000 square feet. Small and narrow parcels are difficult to develop because their redevelopment often does not yield attractive financial return for developers. Furthermore, convincing property owners to sell the properties can be a challenging process without incentives. A re-parcelization bonus would boost a small parcel's development value and prompt its assemblage with neighboring parcels.

Several additional parking-related FAR provisions are discussed later in this section.

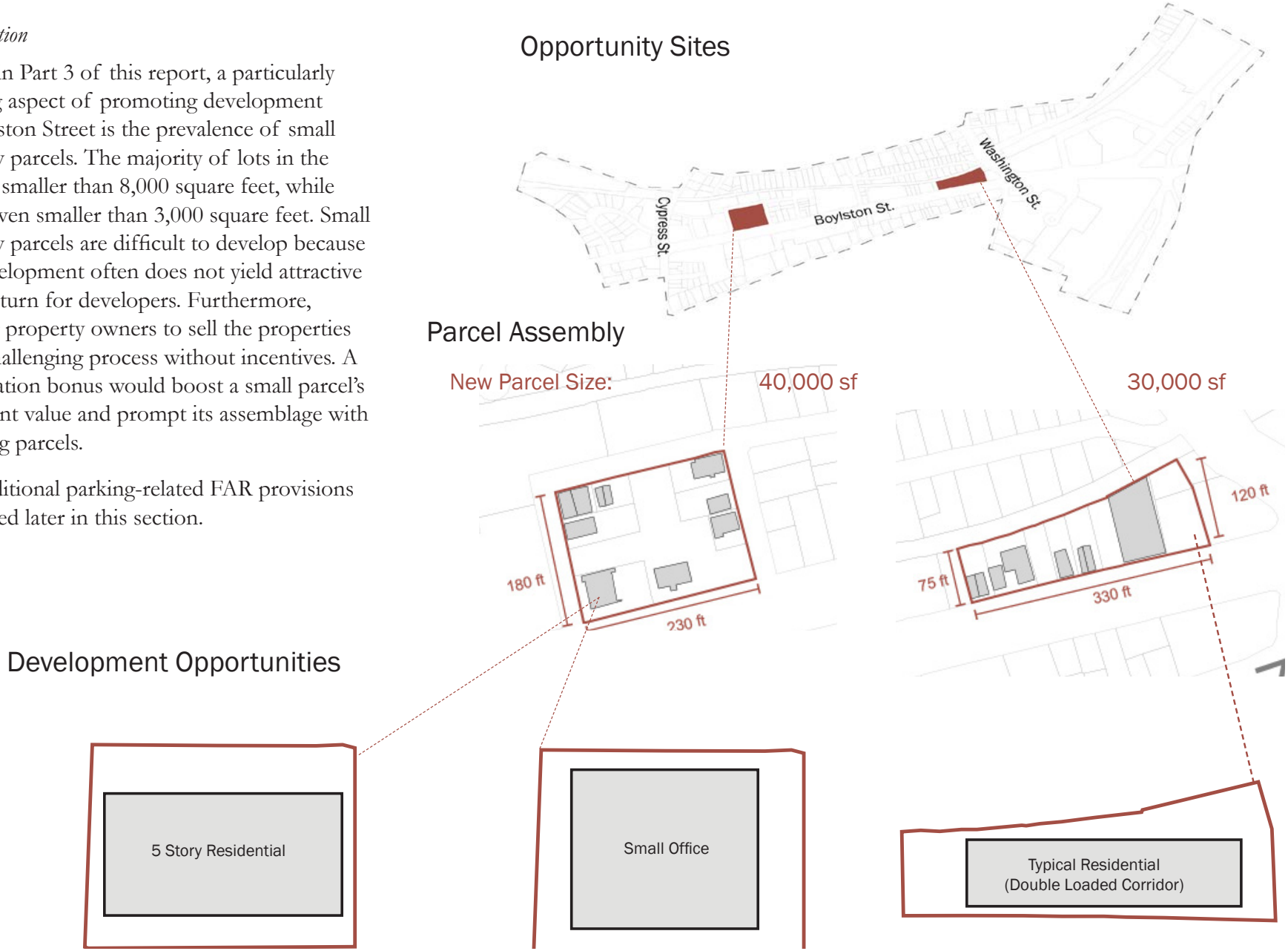


Figure 5.7: Example of parcel assembly opportunities.

Table 5.2: Comparison of proposed overlay districts.

Category	Boylston Street Overlay District	Emerald Island Overlay District
General Approach for Allowable Uses	Underlying uses designated in Zoning Bylaw that are maintained are grandfathered; overlay districts will expand and update uses; new construction or renovation that changes or intensifies use will activate provisions of the overlay districts.	
Encouraged Uses	Street-level retail and active uses, including gallery and performance spaces; breweries/brew pubs; fresh food markets or grocery store; affordable/workforce housing; mixed-use development with commercial	Arts & creative enterprise spaces; street-level retail; hotel; live/work uses
Discouraged Uses	Auto service stations; fast food/ drive-through food service; large surface parking lots	Large surface parking lots
FAR Bonuses	Public plazas or open space; street trees and landscaping; public or shared parking; commercial development; re-parcelization	Flood resistant building design; sustainable building materials and practices; public or shared parking; street trees and landscaping; public pathways to T stations and Emerald Necklace; re-parcelization
Improvement Fund	Public Realm Improvement Fund	Muddy River Fund

Liberalizing Use Restrictions

Currently, the underlying zoning along Boylston Street is composed of a wide range of districts, including Apartment House (M), General Business (G), Industrial (I), and Local Business (L). The geographic division between districts is somewhat arbitrary (particularly near Cypress Street) and discourages the introduction of more active, pedestrian-friendly uses throughout the study area.

Given the proposed vision of creating a mixed-use corridor that integrates residential and commercial activity and facilitates active street life, both overlay districts should allow an expansion of uses, such as those that are

40R – SMART GROWTH ZONING DISTRICT

To allay concerns about the impact of residential development on the school budget, the Town could explore designating the Emerald Island Overlay District a Smart Growth Zoning District under Chapter 40R of the Massachusetts General Laws. Several Town Meeting members and community members identified the Emerald Island as an ideal location for 40R due to its location next to public transit and bicycle/pedestrian amenities. 40R allows Brookline more control over the location of affordable housing while also taking advantage of monetary incentives from the state. Additionally, Chapter 40R entitles communities to activate Chapter 40S, which subsidizes the cost of educating new students added through additional density allowances in 40R developments. For example, the municipalities of Chelsea, Lakeville, and Lunenburg have received school subsidies of approximately $7,000 per new pupil for new residential development. However, this funding stream may not be stable and the standards for receiving funding are complicated. The Town should discuss with the Commonwealth the feasibility of receiving these subsidies.

currently allowed in the General Business (G) districts of the existing Zoning Bylaw. The overlays also provide the opportunity to encourage or discourage specific uses. Underlying uses designated in the Zoning Bylaw will be maintained except in the case of new construction or renovation that changes or intensifies an existing use.

The types of uses that each overlay district chooses to encourage will be based on community feedback, market analysis, and the desired character of each district. This report envisions an Emerald Island Overlay District that discourages large surface parking lots while encouraging street-level retail, arts and creative enterprise space, hotels, and live/work spaces. The Boylston Street Overlay District should encourage buildings with public plazas and open space, street trees and landscaping, public or shared parking, commercial uses, and re-parcelization, while discouraging the kinds of auto-centric uses it currently has in abundance.

Addressing Parking Constraints

Parking remains a necessity for many residents, workers, and retail patrons. To facilitate an adequate provision of parking, particularly on narrow or otherwise challenging parcels, adjacent properties should be rewarded for providing shared parking through FAR bonuses for new developments or fees for service in existing developments. Metering on-street parking spaces to encourage customer turnover would also help to provide adequate parking for retail businesses.

The Town of Brookline should consider halving or even eliminating parking minimums in the Emerald Island and Boylston Street Overlay Districts. In light of the Town's prohibition on overnight on-street parking, the market prompts developers to provide adequate parking for residential, commercial, and retail users even without strict parking minimums. (See "Why Reduced Parking Minimums Can Work in Brookline" on page 78.) Excess parking minimums require developers to build expensive underground or structured parking garages or reserve large portions of their sites for surface parking. As connections to the T improve and the public realm is enhanced, patrons will be motivated to walk, not drive, to destinations along Boylston Street. Reduced or eliminated parking minimums will encourage developers to build parking that serves the needs of their tenants and visitors without producing excess parking spaces.

Parking impacts the design and physical experience of Boylston Street and its surrounding area. Some uses, like a grocery store, will require substantial parking to meet the needs of their patrons but may not generate enough revenue to support investment in structured parking. When this is the case,

HYBRID ZONING CODE IN LIVERMORE, CA

The City of Livermore, CA, combined conventional zoning with form-based regulations. Conventional zoning was used for suburban areas more suitable for driving while form-based regulations were created for areas that the City wanted to promote walkability in. The goal was to convert small, outdated shopping centers and strip malls near Livermore's downtown into walkable neighborhood assets. Form-based zoning reduced surface parking, created design guidelines for more compact housing forms, and required civic spaces. Brookline could adopt a similar zoning strategy where conventional zoning is maintained in areas that are more accessible by car but employ form-based zoning to create a pleasant walkable corridor along Boylston Street.

Figure 5.8: Form-Based Overlay for shopping center redevelopment, Livermore, CA.

Why Reduced Parking Minimums Can Work in Brookline

Urban areas around the United States have increasingly adopted flexible, targeted parking policies that encourage developers to build parking in line with the needs of residents, workers, and patrons. This has helped cities transition away from high parking minimums that subsidize and encourage driving, promote traffic congestion, and create a surplus of unsightly surface parking lots.

Brookline's high parking minimums incentivize driving, worsening the already troublesome traffic along Boylston Street. High parking minimums require developers to provide excess parking to future tenants, which attracts residents who are expected to drive to work and commercial uses that expect car traffic.

By eliminating parking minimums near T stations and reducing them elsewhere in the corridor, Brookline can ensure that development along Boylston Street is for people rather than for cars. Building large, street-front surface parking lots does not align with the community goals of increasing tax revenue and open space and creating a more lively and pedestrian-friendly street. Given that most of Boylston Street's long-term redevelopment will be driven by infill developments on smaller land areas with modest height limits, reducing parking minimums can create an attractive streetscape by enabling developments with small surface lots tucked behind new buildings.

One alternative to surface parking is an underground garage. However, the average cost of constructing an underground parking space in the Boston area is $31,000 (and can jump to as high as $100,000 depending on soil conditions), not including the cost of land. That means that constructing an underground parking lot with 100 spaces — enough for only 50 dwelling units under current zoning — would cost $3.1 to $10 million. These costs will be passed on from developers to the end user, either in higher housing costs or commercial

Table 5.3: Brookline parking minimums in comparative context.

Town/City	Minimum Residential Parking Minimum	Maximum Residential Parking Minimum	Minimum Office Parking Minimum	Maximum Office Parking Minimum
Brookline	2.0 spaces/dwelling	2.3 spaces/dwelling	1 space per 600 square feet	1 space per 200 square feet
Boston	0.2 spaces/dwelling	1.0 spaces/dwelling	1 space per 2400 square feet	1 space per 300 square feet
Cambridge	0.5 spaces/dwelling	1.0 spaces/dwelling	1 space per 1050 square feet	1 space per 150 square feet
Minneapolis	0 spaces/dwelling	1.0 spaces/dwelling	0 spaces	1 space per 500 square feet
Washington, D.C.	0.16 spaces/dwelling	1.0 spaces/dwelling	0 spaces	1 space per 600 square feet

rents, essentially taxing non-drivers. These extra costs could make the area too expensive for developers to build in, for businesses to locate in, or for people to live in. If the Town pays for a public garage, funding would have to come from the Town budget and could detract from other funding priorities such as schools and road maintenance.

Due to its location near two T stops and within walking and biking distance of many jobs in the Longwood Medical Area and downtown Boston, Boylston Street has the potential to be a desirable residential neighborhood for people who do not own cars and rely on public transit, Zipcar, Uber, and bikes. Studio and one-bedroom apartments along Boylston Street would attract young professionals working in these areas. This segment of the population is less likely to currently have children, which puts less pressure on Brookline's over-burdened school system. Millenials are less interested in owning cars than previous generations, and therefore parking is not something many of them consider when choosing a place to live. A recent poll by the Urban Land Institute asked millenials in the Boston metro area to rate factors that are important to them when choosing a place to live. The most important factors were ease of commute, access to public transit, and being able to walk to amenities. Availability of on-street parking was low on the list, with only 25% of survey respondents saying it was "very important" (ULI Boston 2015). Reduced parking requirements would give building owners incentives to pursue more resource-efficient parking options, such as shared parking.

Boylston Street's transit-accessible location, combined with the streetscape improvements detailed in Part 4 of this report and the desire of residents to have neighborhood businesses that they can walk to means that potential customers won't rely on cars to get to new retail businesses along Boylston Street. Unlike today, businesses of the Boylston Street of the future will be able to thrive even without providing high amounts of parking.

Eliminating or reducing parking minimums does not mean that parking will not get built. Developers know the types of residential and commercial tenants they need to attract to turn a profit, and they will build sufficient parking to lease or condo a building.

parking should be located at the rear of a parcel rather than fronting the street. This will meet any anticipated need for parking while minimizing the negative impact parking can have on the public realm. However, the Emerald Island Overlay District should require structured or underground parking rather than surface parking to maintain an active street life on both River Road and Brookline Avenue.

Maintaining Public Involvement through a Meaningful Design Review Process

The public review process in Brookline is currently reactive, responding to proposed projects that are not permitted by-right through existing zoning bylaws. A new trend toward very narrow pre-project rezoning (e.g., Davis Path Special District and Brookline Place) is promising, but results from these experiences are hard to generalize and project-specific re-zonings are difficult for the Town to administer.

According to the existing Zoning Bylaw, any new structures and outdoor uses on Boylston Street must obtain a special permit subject to an environmental impact and design review process. While design review practices in other communities have proven to be effective in creating projects that are more compatible with the existing context, Brookline's design review has been narrowly used in the context of the granting of special permits. Consequently, design reviews in Brookline have been

essentially operating as an added barrier to a streamlined permitting process. Separating the design review process from the special permit process will allow the Town to benefit from the positive aspects of design review without getting bogged down by the lengthy special permit process. The existing design review process can be strengthened by the adoption of clear design rules and guidelines. In developing a new set of rules and guidelines, community input must be solicited.

The Town should put in place detailed, flexible design guidelines that codify community standards. A clearer set of design guidelines will help developers to understand community expectations upfront and encourage them to propose projects that fit those expectations. For example, to accomplish 10 to 12 foot wide sidewalks on Boylston Street, buildings should be set back from the property line no less than four feet; to ensure that buildings do not hide from the street, this setback should not exceed six feet, while making sure that this setback is a paved sidewalk. Moreover, the design guidelines can suggest creative ways in which existing auto-oriented businesses can be integrated into a more pedestrian friendly environment.

The establishment and the adoption of form-based zoning bylaws for Boylston Street and the Emerald Island should require extensive public involvement, as this is the stage at which residents can most significantly shape future developments. Because zoning bylaws inherently age into obsolescence as practices and community expectations change, Brookline should establish a schedule of periodic zoning reviews to ensure that its zoning bylaws do not again fall out of line with its planning goals. This process should include both property owners who frequently contribute to Town policy-making as well as those who have not been as involved. In particular, this process should be demographically representative of those with property in the proposed overlay districts.

Design/Site Plan Review and Planning Board's Role

As part of the evolution of its zoning, the Town should consider bolstering the Planning Board's role in project review. In part, this can be done by making the Planning Board's design review recommendations binding rather than advisory. Moreover, the current design review process amalgamates design and site plan review. To ensure that each is given thoughtful consideration, Brookline should consider separating review of traffic circulation, grading and topographic alterations, utilities, drainage, stormwater re-charge, and other environmental factors into a separate site plan review process. Boylston Street provides a fitting area to pilot such a reform.

Conclusion

The zoning process is about codifying not only community expectations, but also acceptable trade-offs. The street life desired by the community members, the retail they have asked for, and the tax base the Town is seeking all call for increased density and more tactful urban design. Attracting quality developers would also depend on increased density, since an increased amount of development potential means higher profitability that in turn would make Brookline more attractive compared to other communities. Balancing these concerns will require many of the changes recommended here.

Complete Streets Road Map

For too long, Boylston Street's designation as a state highway, Route 9 East, and the heavy traffic that comes with being a major arterial road have left community members feeling hopeless about the possibility of making the corridor safer and more welcoming to people walking and biking. Recent developments in transportation policy at the national, state, and local levels, however, suggest that now may be the perfect opportunity to rethink the Boylston Street corridor and implement

Complete Streets design principles to make the corridor better for all users. This section describes what these policy developments mean for achieving a Complete Boylston Street and lays out a road map for working toward this goal. While policymakers at all levels have laid the groundwork that enables Complete Streets implementation, it is up to Brookline community members to push their town and state leaders to make a Complete Boylston Street a reality.

Policy Developments

National

For many years, the purpose and goal of street design in the United States, as overseen by the Federal Highway Administration (FHWA), was to move as much vehicular traffic as quickly as possible from point A to point B. This goal informed how FHWA influenced roadway design through project funding, oversight, and other rules and regulations. As part of this, FHWA established a set of 13 design guidelines, oriented around traffic performance and vehicle safety that all roadways in the National Highway System must follow. In addition to interstates and rural state highways, the National Highway System includes many urban streets that are arterials, such as Route 9 East.

Recently, FHWA has moved away from this one-size-fits-all approach to roadway design and is implementing policies to broaden the design of roadways to accommodate users of all transportation modes. In August of 2013, FHWA announced support of "flexible approaches to bicycle and pedestrian facility design," that expanded beyond the standard Highway Design Manual. FHWA followed this action with officially endorsing the "Urban Streets Design Guide" published by the National Association of City Transportation Officials (NACTO) in 2014 for use on the design of roadways under FHWA oversight. Perhaps most significantly, although not yet finalized, FHWA is currently working to allow urban roadways with speed limits under 50 mph to automatically be exempt from 11 of the 13 mandated roadway design guidelines. State and local officials will no longer have to apply for design exemptions in order to implement multi-modal roadway design, streamlining the pathway to Complete Streets.

State

The Massachusetts Department of Transportation (MassDOT) has emerged as a national leader in Complete Streets design. In 2006, MassDOT was one of the first state transportation agencies to adopt a Complete Streets approach to design with the release of the "Project Development and Design Guide," which all roadway projects under MassDOT jurisdiction or oversight must follow. In addition, Massachusetts was the second state to officially endorse the NACTO "Urban Street Design Guide," allowing it to be applied to MassDOT projects. Most recently, MassDOT unveiled a Complete Streets program to provide municipalities with technical assistance on Complete Streets policy and implementation as well as to fund grants for planning, design, and construction (up to $750,000). Applications for this technical assistance and funding will be available in early 2016.

Local

The Town of Brookline is currently developing a Complete Streets policy in order to be eligible to receive funding from the MassDOT Complete Streets program described above. Members of the Brookline Complete Streets Study Committee suggested during the December 2, 2015, public meeting for this vision plan that Boylston Street could serve as a pilot project for implementing the Town's Complete Street policy.

Road Map

With a policy framework in place to enable the implementation of Complete Streets design, the following road map guides the trajectory of how community members, town officials, and MassDOT can collaborate to make a Complete Streets vision a reality.

Tactical Urbanism Pilot Project (2016)

As a first step toward Complete Streets implementation, a low-cost "tactical urbanism" style approach at the Cypress Street intersection would serve two purposes:

1. A proof of concept that Complete Streets design elements can be applied on Boylston Street successfully;
2. An education campaign to get community members familiar with Complete Streets design and build support for a redesigned Boylston Street corridor.

Tactical urbanism refers to usually temporary urban design projects that can be implemented quickly and at a low-cost. Tactical urbanism projects are especially useful for testing urban design elements that have not previously been tried in a community and for building public support and excitement for public realm changes. A tactical urbanism pilot at the Cypress Street intersection could use temporary paint to improve crosswalk visibility, traffic cones or potted plants to simulate curb-extensions, and low-cost or borrowed chairs or benches for street furniture.

Apply for MassDOT Complete Streets Funds (2016–2017)

Brookline should apply for funding from MassDOT to begin design and implementation of permanent Complete Streets improvements on Boylston Street. With up to $750,000 available, the Town will have to be strategic about what to apply for: either design or implementation of an interim improvement like the Davis Path pedestrian crossing, or technical assistance and design funding for a full Complete Streets overhaul of the Boylston Street corridor.

Get project included in the State Transportation Improvement Program (STIP) (2017)

The State Transportation Improvement Program (STIP) is a listing of priority transportation projects listed by funding category and year. Listing a project in the STIP is critical for it to qualify for state funding and federal funding distributed through the state. Getting listed in the STIP requires coordination between the Town, the regional transportation body (MPO), and MassDOT. The Brookline community should advocate for pushing this project forward so that it can get listed and qualify for state and federal construction funding.

Develop Complete Boylston Street Plan and Design (2017–2018)

As the Town and MassDOT move forward with a Complete Streets project on Boylston, it is critical that community members remain actively engaged in the project design process. Any design for the corridor will likely involve

TACTICAL URBANISM IN MINNEAPOLIS, MN

The Minneapolis Bike Coalition embarked on an Open Streets Minneapolis initiative to install temporary intersection improvements with curb-extensions and island protected bike lanes, as part of a weekend long festival. Minneapolis had yet to install a single on-street protected bike lane, but pop-up events like this helped build public support for future bike and pedestrian investment. Members of the Minneapolis Bike Coalition stressed the importance of working collaboratively with municipal governments in order to work toward sustainable change.

Figure 5.9: Tactical Urbanism intersection implementation, Minneapolis, MN. Image Source: Minneapolis Bike Coalition

CURB-EXTENSIONS

Traffic along Boylston Street often exceeds the 30 miles per hour speed limit on the roadway, creating a dangerous atmosphere for pedestrians. Several stakeholders commented that crossing Boylston Street at the Cypress Street intersection is dangerous, especially at peak rush hours in the morning and evening when professionals and students walk north and south along Cypress Street. Curb bump-outs are one traffic calming urban design element that can slow down traffic while increasing pedestrian safety.

A curb bump-out is an extension of the sidewalk into the street that reduces the street width that pedestrians need to cross at intersections. Bump-outs increase the overall visibility of pedestrians by aligning their starting point with the parking lane and tighten curb radii, which encourages slower turning speeds. The additional space that curb bump-outs create provides room for street trees, landscaping, or street benches that can improve the public realm along Boylston Street.

A common concern is that curb bump-outs force cyclists to enter car traffic lanes at an intersection. This issue can be avoided by creating ramps that let cyclists ride up and over bump-outs or providing street-level gaps in the bump-outs.

Figure 5.10: Example of a curb-extension for pedestrian safety in Birmingham, MI. Image Source: NACTO Urban Street Design Guide

trade-offs between design elements, and public involvement will be necessary to make sure the proposed design meets the long-range community vision for the corridor, including transportation elements.

Install Mid-block Pedestrian Crossing Connecting Davis and Walnut Paths (2018)

As an interim step before the full Complete Boylston Street project is undertaken, a mid-block pedestrian crossing connecting Davis and Walnut paths will provide an important connection in the heart of the corridor, potentially supporting development at the Boylston Terrace catalyst site.

Construct a Complete Boylston Street (2020+)

With design completed and funding secured, construction of a Complete Boylston Street project can proceed, transforming Boylston Street from Washington Street to Cypress Street into a safe, convenient, and enjoyable multi-modal corridor.

Assess Process and Performance (After Construction)

As the pilot implementation of Complete Streets policy in Brookline, it will be critical to develop performance metrics and assessment measures in order to track how well the constructed Complete Boylston Street project is meeting its intended goals. Such metrics could include:

- Traffic speed
- Traffic flow
- Vehicle counts
- Pedestrian counts
- Cyclist counts
- Number of collisions and injuries
- Property value of adjacent parcels

These metrics will help town officials learn from Complete Boylston Street to best implement Complete Streets improvements across Brookline.

Community Engagement

At the second public meeting on December 2, 2015, the study team presented the set of recommendations discussed in this report, including strategies for catalyst sites, Complete Streets, and zoning. Community members provided input on these strategies and expressed interest in carrying forward many of the recommendations.

Many participants commented on the form-based zoning recommendations and a number of people expressed a desire to learn more about this form of zoning. In general, the meeting participants were receptive to the idea that form-based zoning could serve as a tool to help specify upfront what types of development are welcome in Brookline and to build a proactive and efficient zoning culture that will replace the existing reactive and lengthy review processes.

On comment cards distributed at the meeting, participants were asked to indicate which of the subject areas discussed were of greatest interest to them and for which subject areas they would be willing to participate in potential focus group discussions in the future. Meeting participants were most interested in the Cypress Junction catalyst site recommendations as well as the area-wide public realm and zoning recommendations. The zoning recommendations generated the greatest number of sign-ups for future collaborative work. Community members in attendance also expressed a strong desire to coordinate the initial implementation steps for this plan; some feared that dispersing responsibilities among existing committees and groups would cause the overall vision and details presented by the project team to be lost. The Town may wish to set up focus groups to help further the recommendations presented in this report in partnership with existing committees, neighborhood groups, and decision-making bodies in the Town of Brookline.

The high level of positive feedback and significant interest shown by meeting participants indicate that there are many opportunities to move forward with further planning and implementation.

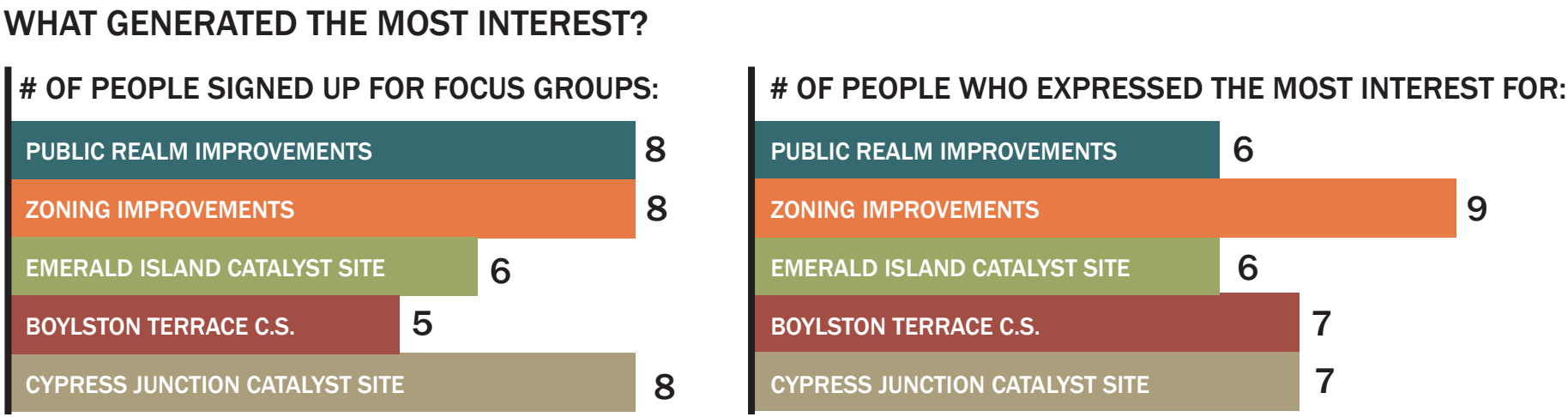


Figure 5.11: Demonstrated community interest by proposal at the December 2nd public meeting.

Moving Forward

This report provides a comprehensive vision and framework for unlocking the remaining infill redevelopment potential of Route 9 East. The recommendations provided encourage new development to bring life to a reimagined Boylston Street and to provide public realm improvements that enhance the pedestrian experience, safety, and connectivity along the corridor. Key elements of this plan include phased development, zoning changes, and improvements to the streetscape. An overarching theme for implementation is the focus on leveraging projects already in the pipeline and to plan ahead for future infill development that meets the needs and goals of the community. This approach will require the collaboration of many stakeholders to move forward.

The Town has the expertise and experience necessary to further refine and implement these recommendations. The Davis Path Special District Study Committee process that resulted in the Homewood Suites development at 111 Boylston Street is a model that should be replicated, as it embraced a proactive approach that involved abutters and other community members early on in the process. Participants collectively developed a vision for the site, including desired uses, massing, and other criteria supported by additional market and financial analysis. This process resulted in the creation of zoning that enabled multiple sites to be redeveloped in a manner that met the goals of the community, minimized risk incurred by a potential developer, realized additional public benefits, and maximized tax revenues. The Davis Path Special District process and results can be duplicated on a larger scale to achieve the vision for Boylston Street.

Below are some of the key components for achieving the vision:

1. Proactive community involvement early on;
2. A comprehensive vision, criteria, and implementation strategies that build on successes over time;
3. Establishment of development requirements, predictable process and desired public benefits at the early stages;
4. Flexible zoning that reflects the vision and community goals and that accounts for changing market conditions;
5. Clear articulation of the vision and community goals to developers to attract desired projects and to expedite the overall process to the extent possible.

This visioning process has generated a renewed sense of interest and optimism about the study area. Town staff, boards, and committees should leverage this momentum and continue working with the community to move the recommendations forward.

Table 5.4 shows a suggested timeline for advancing the recommendations.

Implementation will focus on both the economic development and zoning changes recommended for the catalyst sites, as well as on identifying funding and zoning changes needed for public benefits and public realm improvements. Town departments, boards, and committees, as well as residents, will play a key role in implementation.

Catalyst Sites: Roles & Responsibilities

Economic Development, Planning, and Community Development

The Economic Development Division, in collaboration with EDAB and the Board of Selectmen, should be responsible for overall coordination and implementation of the vision. Economic Development staff should review this report's recommendations and chart a path forward based on priority projects and continued input from various stakeholders.

Responsibilities of Town staff in this area should include:

- Coordination with EDAB and the Board of Selectmen to prioritize projects and a timeline for moving forward;

- Establishing a schedule and framework for continued community outreach to follow up on recommendations;
- Budgeting for the necessary financial feasibility studies to support zoning changes, including recommended uses and dimensional requirements;
- Working with Town boards and committees to implement recommendations and to account for their progress.

Board of Selectman

Selectmen are Chief Executive and Elected Officers in charge of municipal management and all authority not held by Town Meeting. The Board of Selectmen can issue warrants on specific issues for Town Meeting and make recommendations, as well as host public hearings and form committees on special topics.

The Selectmen should authorize and appoint overlay study committees to further refine and implement the proposed Boylston Street Overlay District and Emerald Island Overlay District. Within the committees, smaller working groups can focus on different elements of the catalyst areas including zoning, financial feasibility, massing, transit, public benefits, resilient design, as well as connectivity and synergy with the Emerald Necklace, projects already in the pipeline, and with the surrounding neighborhoods.

Public Benefits and Public Realm Improvements: Roles & Responsibilities

Complete Streets Study Committee

This segment of Boylston Street presents an opportunity for the Town to begin implementing its new Complete Streets policy in conjunction with the MassDOT recommendations. The successes and lessons learned from turning this portion of Boylston Street into a Complete Street could evolve into a model for the Town to use in creating Complete Streets in other neighborhoods. Members of the Complete Streets Study Committee, which is charged by the Board of Selectmen with developing a Complete Streets policy for Brookline, should be involved in further defining Complete Streets implementation strategies along the rest of the study area, including identifying potential funding sources, prioritizing specific improvements and in working with town staff to incorporate those projects into the Town's capital improvements budget over time.

Zoning Bylaw Committee

The Zoning Bylaw Committee is a forum to present and discuss potential Zoning Bylaw amendments for possible submission to Town Meeting. This study recommends two new overlay districts and the adoption of form-based zoning elements to ensure that future development in the corridor meets the needs and desires of the Town while minimizing impacts on existing neighborhoods. The Zoning Bylaw Committee should collaborate with EDAB, the Planning Board, and the surrounding neighborhoods to further define neighborhood specific public benefits required for new projects to move forward. This process should include continued engagement to educate stakeholders on how form-based zoning can be used as a tool to help overcome some of the physical challenges present along Boylston Street.

Planning Board

The Planning Board primarily guides the physical growth and development of the Town through the adoption and implementation of a master plan. The Board also provides feedback on Zoning Bylaw amendments, land use changes, and development projects and forms Design Advisory Teams as needed to assist on larger projects. The Planning Board should work closely with the special committees on zoning recommendations as well as create an updated set of design guidelines to be used in the overlay districts and in the study area generally.

Table 5.4: Timeline to advance recommendations.

Date	Action	Responsibility
December 2015	MIT presentation of final vision plan at community meeting	Study team and Economic Development (ED) staff
January 2016	Review report, refine implementation timeline, and prioritize projects to move forward	ED staff, Board of Selectmen, EDAB
Winter 2016	Form overlay study committees for catalyst sites. Consider forming Boylston Street Implementation Committee for other public realm improvements	Board of Selectmen, ED staff
Spring 2017	Market and financial feasibility analysis from a commissioned consultant	ED staff and overlay study committees
Spring 2017	Refine overlay zoning criteria	ED staff and overlay study committees
Summer 2017	Draft warrant article outlining proposed zoning changes for fall Town Meeting	ED staff and overlay study committees
Fall 2017	Approve Overlay Zoning	Town Meeting

Figure 5.12: A vision for the Boylston Street of 2035.

Conclusion

Bringing Back Boylston: A Vision and Action Plan for Route 9 East jump-starts the interest and momentum that is brewing on Brookline's Boylston Street. The Town has the tools, expertise, and commitment from residents to turn its vision of a vibrant, cohesive Boylston Street into a reality. By utilizing the expertise of existing boards and committees, creating district-specific committees when necessary, and involving the community early in the process, Boylston Street will:

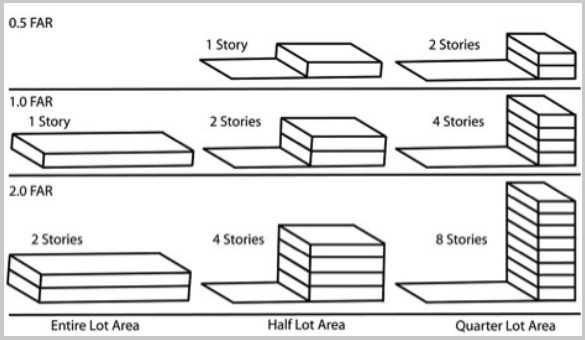
- Transform into a safe, multi-model Complete Street;
- Attract development that offers public benefits and suits the neighborhood character;
- Improve the public realm through short-term "tactical urbanism" and long-term development agreements;
- Support a density of residents, visitors, and workers to patronize local business and increase local tax revenue.

From a divisive eyesore to a desirable destination, the Boylston Street of 2035 will serve the needs of Brookline's residents for decades to come.

Zoning Glossary

Floor Area Ratio (FAR): The ratio between a building's total floor area (gross floor area) and the area of the lot on which the building stands. It is a tool to express trade-offs between height and open space, and ultimately controls the overall bulk on a given lot.

FAR = Gross Floor Area of Building/Total Area of the Lot



Visualizing FAR. Citation: "What is Floor Area Ratio (FAR)?" Seattle's Land Use Code (blog). March 9, 2011. https://seattleslandusecode.wordpress.com/2011/03/09/what-is-floor-area-ratio-far/

Form-based Zoning: Regulates the physical form of buildings and the relationship of buildings to the public realm to achieve community needs and goals. Uses physical form as the organizing principle for the zoning code, rather than regulating by uses. (For more detail see "Form-Based Zoning" in this section).

Incentives: Allow developers to create higher density (through higher height and FAR allowances) in return for public benefits. Public benefits could include enhanced public space, subsidized or free rent for public or non-profit/arts uses, increased affordable housing, provision of shared parking, or other priorities that the community agrees upon.

Overlay District: A special zone placed over an existing zoning district. Adds additional area-specific zoning provisions to the existing bylaw. An overlay district may have a higher level of restrictions than the underlying zoning, or it may permit exemptions or less restrictive standards than what is required in the underlying regulations.

Parking Minimums: The minimum amount of parking required for a building. Residential buildings are often required to have a certain number of parking spaces per dwelling unit (e.g., 1 space per dwelling unit), while commercial developments are required to have a parking space for a certain square footage of usable space (e.g., 1 space per 500 square feet).

Setback: The required distance that a building must be set back from the property line. Zoning codes often have requirements for front, rear, and side setbacks.

Special Permit: Permission to use land in a way that is not allowed by right. Projects that need special permits must go through a discretionary review processes administered by permit-granting bodies, such as the Zoning Board of Appeals or the Planning Board, to get an approval to use the land as proposed.

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